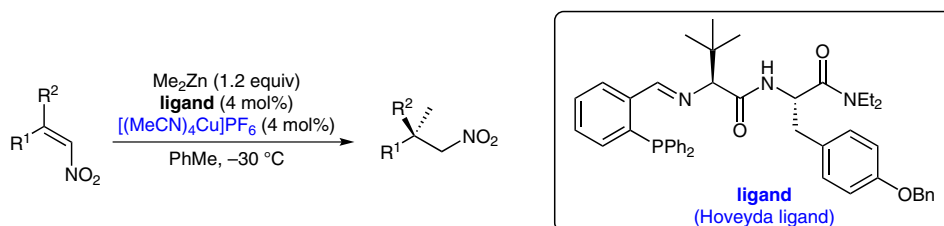


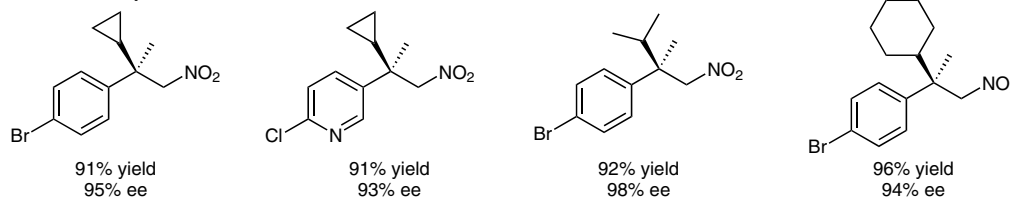
X. ZENG,* J. J. GAO, J. J. SONG, S. MA, J.-N. DESROSIERS, J. A. MULDER, S. RODRIGUEZ, M. A. HERBAGE, N. HADDAD, B. QU, K. R. FANDRICK, N. GRINBERG, H. LEE, X. WEI, N. K. YEE, C. H. SENANAYAKE (BOEHRINGER INGELHEIM PHARMACEUTICALS, RIDGEFIELD, USA)

Remarkable Enhancement of Enantioselectivity in the Asymmetric Conjugate Addition of Dimethylzinc to (*Z*)-Nitroalkenes with a Catalytic [(MeCN)₄Cu]PF₆-Hoveyda Ligand Complex
Angew. Chem. Int. Ed. **2014**, *53*, 12153–12157.

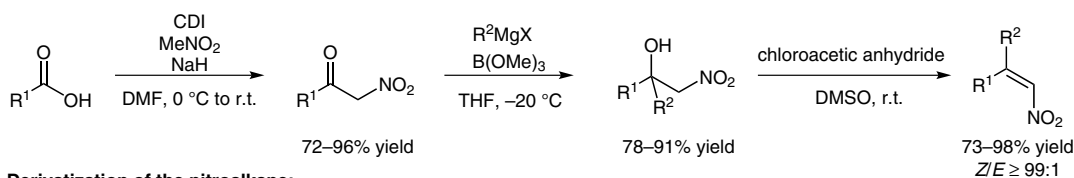
Asymmetric Conjugate Addition of Dimethylzinc to (*Z*)-Nitroalkenes



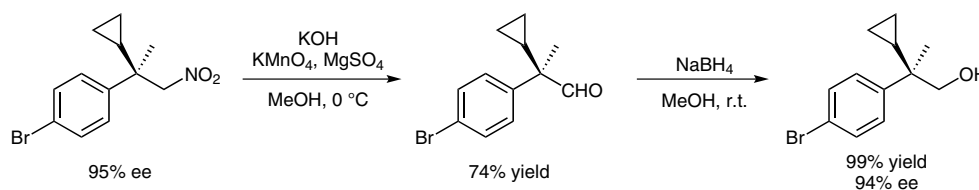
Selected examples:



Preparation of the (*Z*)-nitroalkenes:



Derivatization of the nitroalkane:



Significance: Asymmetric conjugate addition of organometallic species to nitroalkenes can be an efficient way to access all-carbon quaternary stereocenters. Herein, the authors demonstrate that the use of [(MeCN)₄Cu]PF₆ plays a crucial role in the asymmetric conjugate addition of dimethylzinc to (*Z*)-nitroalkenes with the Hoveyda ligand.

Comment: With the reported conditions, the undesired nitroalkene isomerization, resulting in low enantioselectivity, has been solved. The authors also developed a practical and highly controlled method for the synthesis of (*Z*)-nitroalkenes (*Z/E* ratio ≥ 99:1).

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Synfacts 2015, 11(1), 0048 Published online: 15.12.2014
DOI: 10.1055/s-0034-1379750; Reg-No.: H15614SF