

Catalyst-Controlled Diastereoselective Isomerization of Multi-Functionalized Optically Active Primary Allylic Alcohols

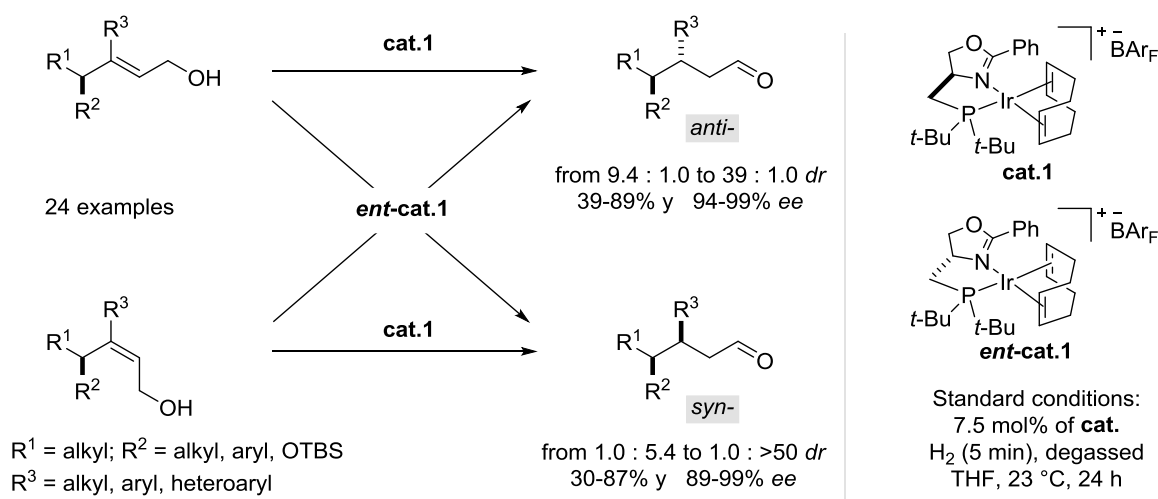
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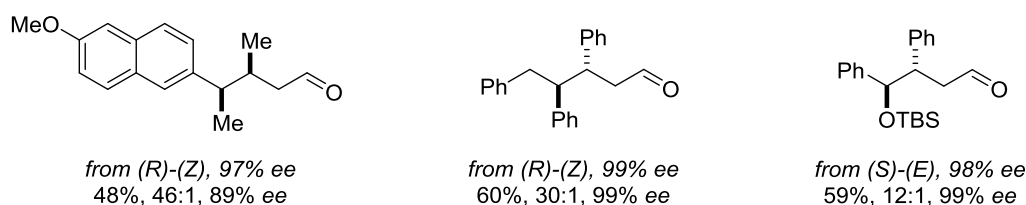
Abstract

The development of diastereoselective methods where a chiral catalyst must control the absolute configuration of a given stereocenter independently of a stereochemically complex environment is a contemporary problem in selective catalysis.^{1,2}

Herein, we describe the catalyst-controlled diastereoselective isomerization of multi-functionalized optically active primary allylic alcohols. Under identical experimental conditions with iridium catalysts supported by a chiral (P,N) ligand, both *anti*- and *syn*-aldehydes could be obtained with high enantioselectivity, diastereoselectivity and in moderate to good yields.³



Representative results



References

- [1] *Fundamentals of Asymmetric Catalysis*; Walsh, P. J.; Kozlowski, M. C., Eds; University Science Books: Sausalito, CA, 2009.
- [2] H. Li, C. Mazet *Acc. Chem. Res.* **2016**, *49*, 1232-1241
- [3] J. Guillemin, H. Li, C. Mazet, *Manuscript in preparation*