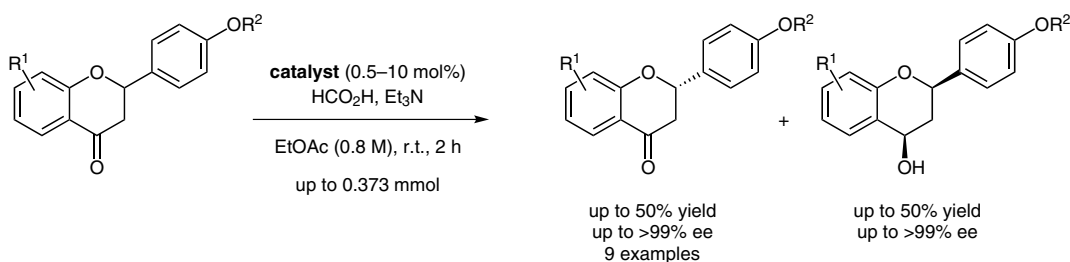
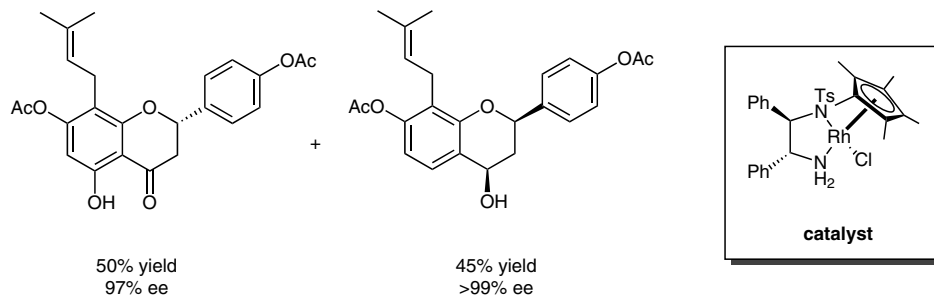


M.-K. LEMKE, P. SCHWAB, P. FISCHER, S. TISCHER, M. WITT, L. NOEHRINGER, V. ROGACHEV, A. JÄGER, O. KATAEVA, R. FRÖHLICH, P. METZ* (TECHNISCHE UNIVERSITÄT DRESDEN UND WESTFÄLISCHE WILHELMS-UNIVERSITÄT MÜNSTER, GERMANY; TOMSK POLYTECHNIC UNIVERSITY, RUSSIA)
A Practical Access to Highly Enantiomerically Pure Flavanones by Catalytic Asymmetric Transfer Hydrogenation
Angew. Chem. Int. Ed. **2013**, 52, 11651–11655.

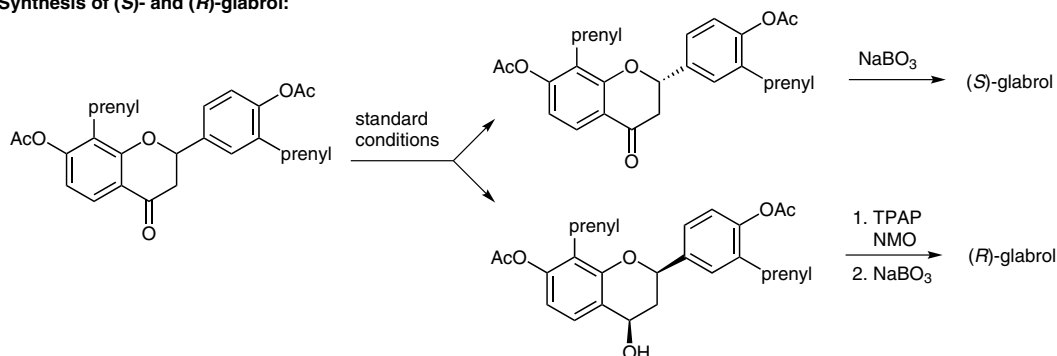
Rhodium-Catalyzed Asymmetric Transfer Hydrogenation



Selected examples:



Synthesis of (*S*)- and (*R*)-glabrol:



Significance: Chiral flavanone moieties are among the largest secondary metabolites in plants. As such, they have been known for their antifungal, antibacterial, and antiviral effects. The authors present a practical and convenient method for the synthesis of both enantiomers of this class of molecules.

Comment: The catalytically active rhodium hydride species was generated in situ prior to the addition of the substrate. This method allowed the authors to reduce catalyst loading to 0.5 mol% while retaining high enantioselectivities. They were able to synthesize both enantiomers of the natural product glabrol.

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Synfacts 2014, 10(1), 0058 Published online: 13.12.2013
DOI: 10.1055/s-0033-1340441; Reg-No.: L15113SF

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