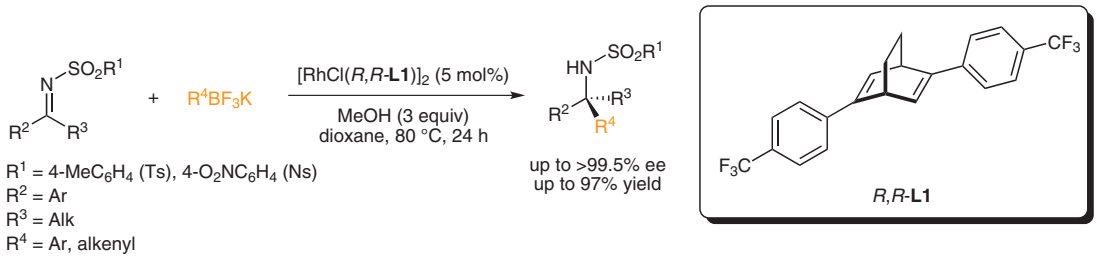
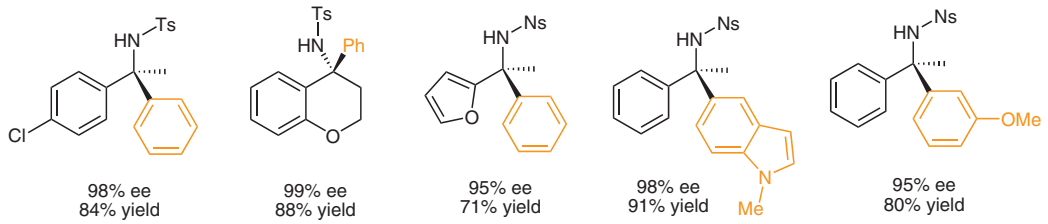
R. SHINTANI,* M. TAKEDA, Y.-T. SOH, T. ITO, T. HAYASHI* (KYOTO UNIVERSITY, JAPAN)
Rhodium-Catalyzed Asymmetric Addition of Potassium Organotrifluoroborates to *N*-Sulfonyl Ketimines
Org. Lett. **2011**, *13*, 2977-2979.

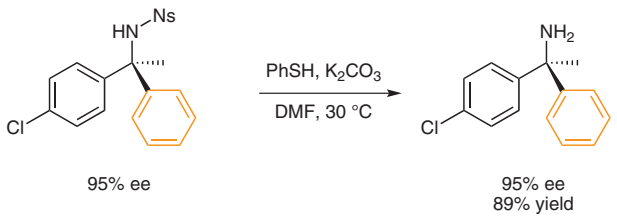
Rh-Catalyzed Asymmetric Addition of Trifluoroborates to Sulfonylketimines



Selected examples:



Typical deprotection of the addition products:



Significance: Easily accessible potassium organotrifluoroborates undergo a rhodium-catalyzed asymmetric addition to both *N*-tosyl and *N*-nosyl ketimines. The use of a chiral bicyclooctadiene-based ligand allows high enantiomeric excess in the product formation.

Comment: In the case of nosyl groups, the addition products can easily be deprotected using thiophenolpotassium carbonate, retaining the enantiomeric purity. For related applications of dienic ligands, see: K. Okamoto, T. Hayashi, V. H. Rawal *Org. Lett.* **2008**, *10*, 4387.

SYNFACTS Contributors: Paul Knochel, Andreas J. Wagner
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Category
Metal-Mediated Synthesis

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ketimines

SYNFACT of the month

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