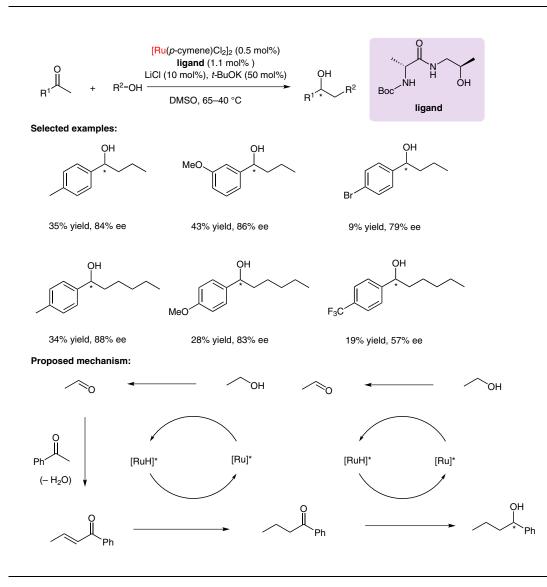
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Tandem α-Alkylation/Asymmetric Transfer Hydrogenation of Acetophenones with Primary Alcohols *Eur. J. Org. Chem.* **2014**, 6639–6642.

## Tandem α-Alkylation–Asymmetric Transfer Hydrogenation of Acetophenones



**Significance:** The authors present the first example of a direct formation of enantiomerically enriched secondary alcohols from ketones and primary alcohols by a tandem  $\alpha$ -alkylation–asymmetric transfer hydrogenation process using [Ru(*p*-cymene)Cl<sub>2</sub>]<sub>2</sub> as catalyst in the presence of an amino acid hydroxy amide as ligand.

**Comment:** Diversely substituted acetophenones were successfully converted into chiral secondary alcohols via the borrowing hydrogen methodology in moderate yields and in moderate to good enantiomeric excess. In this process, primary alcohols served as both alkylating and reducing agents.

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Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

## Key words

transfer hydrogenation

alkylation

ruthenium