**Category**

**Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions**

**Key words**

**ruthenium**

**transfer hydrogenation**

**tridentate N-ligands**

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Application of Ruthenium Complexes of Triazole-Containing Tridentate Ligands to Asymmetric Transfer Hydrogenation of Ketones
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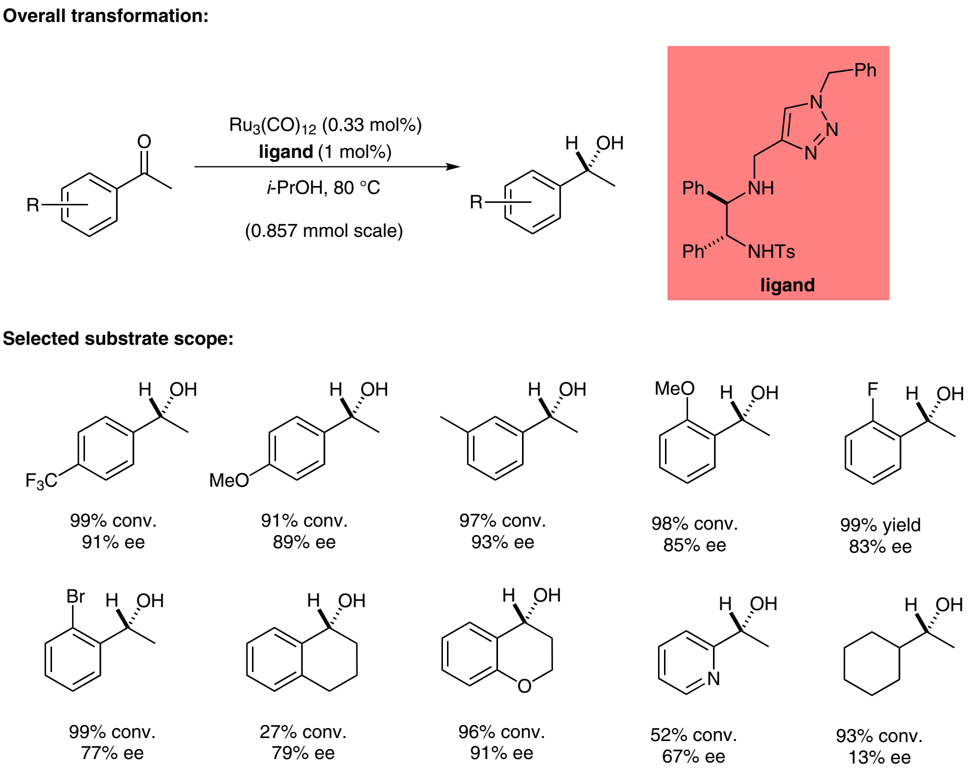
# Asymmetric Ruthenium-Catalyzed Transfer Hydrogenation of Ketones



**Significance:** Transition-metal-catalyzed asymmetric transfer hydrogenation (ATH) has become a leading reduction method, which can be credited to its broad scope and relatively mild conditions. Additionally, the development of more general methods to synthesize chiral secondary alcohol is a useful endeavor. Specifically, the ATH reduction of *ortho*-substituted aryl ketones is considered a more challenging transformation than that of related *meta*- and *para*-substituted substrates.

**Comment:** The authors report a ruthenium-catalyzed ATH of substituted aryl methyl ketones using a novel tridentate triazole containing ligand. The scope of this transformation is quite broad, and conversions and enantioselectivities range from moderate to excellent. Notably, tetralone and 4-chromanone can be reduced efficiently with synthetically useful enantioselectivity. The reduction of cyclohexyl methyl ketone proceeds with excellent conversion, yet enantioselectivity remains low (13% ee).

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