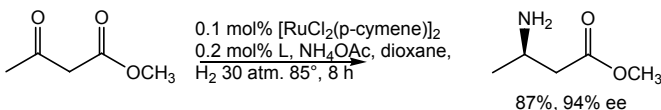


Catalog # 44-0181 Diacetato{(S)-(+)-5,5'-Bis[di(3,5-di-t-butyl-4-methoxyphenyl)phosphino]-4,4'-bi-1,3-benzodioxole}ruthenium(II) Ru(OAc)<sub>2</sub>[(S)-dtbm-segphos@]

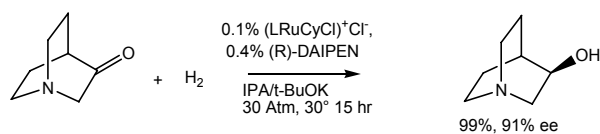
Note: Manufactured under license of Takasago patent. Takasago SEGPHOS Ru Catalyst Kit component.

Technical Notes:

1. Biaryl bisphosphine ligand with narrow dihedral angle. The DM-SEGPHOS ligand, as the ruthenium complex, gives superior enantioselectivity and diastereoselectivity in the asymmetric hydrogenation of  $\alpha$ -substituted- $\beta$ -ketoesters. See [15-0066](#).
2. Ruthenium catalyzed enantioselective synthesis of  $\beta$  amino acids by hydrogenation.
3. Ruthenium catalyzed asymmetric hydrogenation of 3-quinuclidinone. See [44-0098](#) for Ru catalyst.



**Tech. Note (2)**  
**Ref. (1)**



**Tech. Note (3)**  
**Ref. (2)**

References:

1. *WIPO Pat.* WO2005028419.
2. *U.S. Pat. App.* 2006047122.