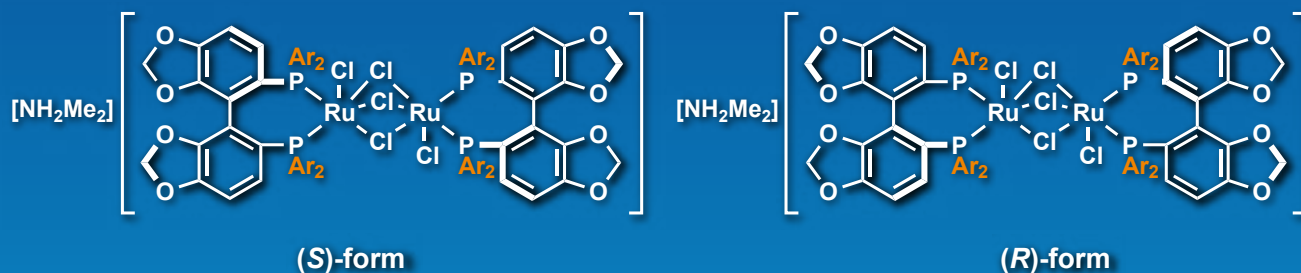
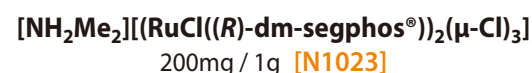
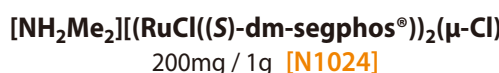
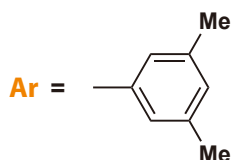
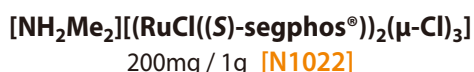
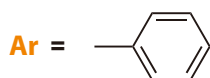


Ruthenium Complex Catalysts for Asymmetric Hydrogenation to Optically Active Amines

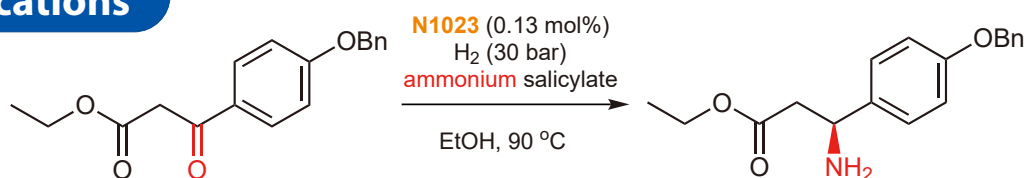


Advantages

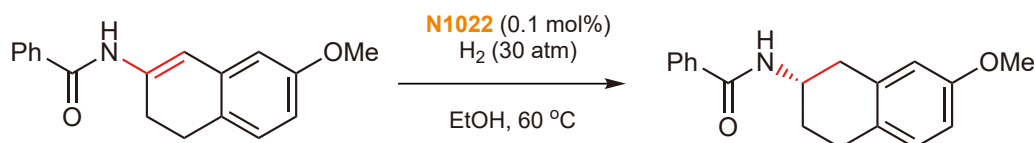
- Convert Ketones to Amines via Reductive Amination in High Yields and High Enantioselectivity
- Convert 1,3-Dicarbonyl Compounds to Alcohols in High Yields and High Enantioselectivity
- High Turnover Number



Applications



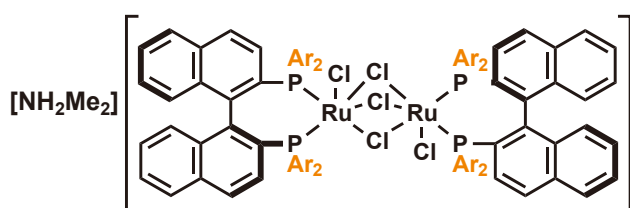
Reference G. F. Busscher, et al., *Tetrahedron: Asymm.* **2010**, *21*, 1709.
DOI: <https://doi.org/10.1016/j.tetasy.2010.04.013>



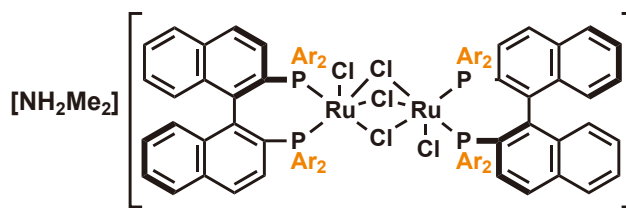
Reference M. Imanishi, et al., *J. Med. Chem.* **2008**, *51*, 4804.
DOI: <http://dx.doi.org/10.1021/jm800222k>

Ruthenium Complex Catalysts for Asymmetric Hydrogenation to Optically Active Amines

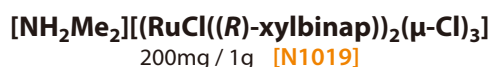
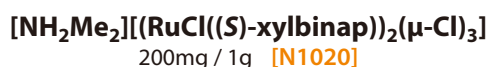
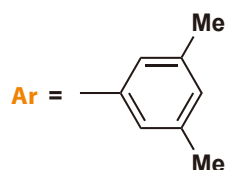
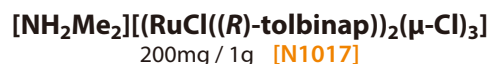
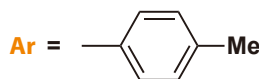
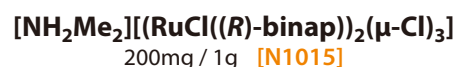
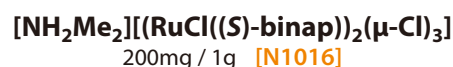
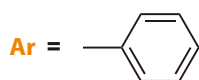
Ruthenium-BINAP Catalysts



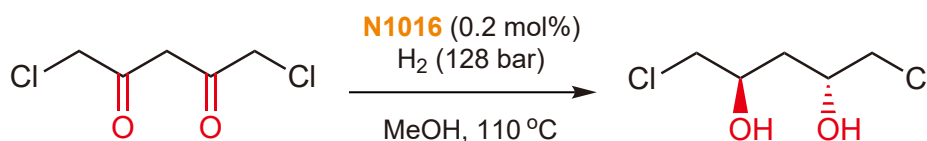
(S)-form



(R)-form



Application



Reference P. Walleser, R. Brückner, *Org. Lett.* **2013**, *15*, 1294.
DOI: <https://doi.org/10.1021/ol400232m>

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