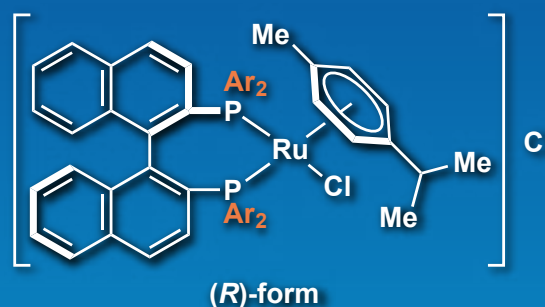
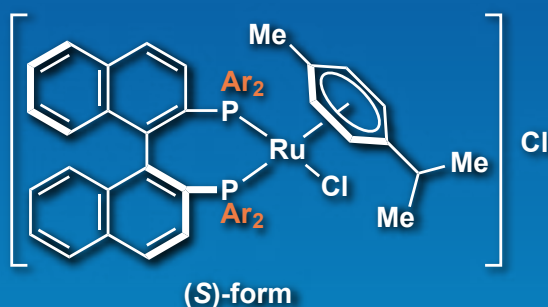


New

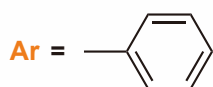
TGI

Ruthenium Complex Catalysts for Asymmetric Hydrogenation of Olefins and Functionalized Ketones



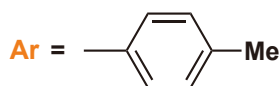
Advantages

- Reduce Various Olefins and Functionalized Ketones in High Yields and High Enantioselectivity
- High Turnover Number



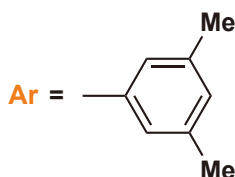
[RuCl(*p*-cymene)((*S*)-binap)]Cl
200mg / 1g [R0147]

[RuCl(*p*-cymene)((*R*)-binap)]Cl
200mg / 1g [R0146]



[RuCl(*p*-cymene)((*S*)-tolbinap)]Cl
200mg / 1g [R0149]

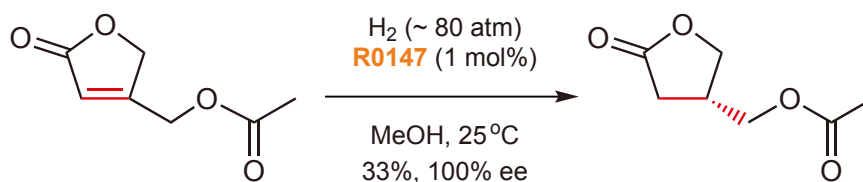
[RuCl(*p*-cymene)((*R*)-tolbinap)]Cl
200mg / 1g [R0148]



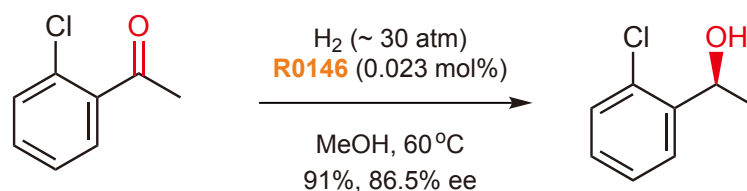
[RuCl(*p*-cymene)((*S*)-xylbinap)]Cl
200mg / 1g [R0151]

[RuCl(*p*-cymene)((*R*)-xylbinap)]Cl
200mg / 1g [R0150]

Reaction Examples



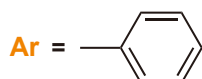
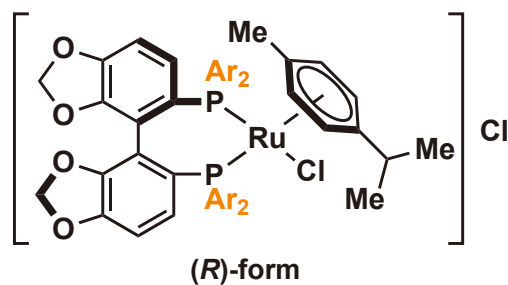
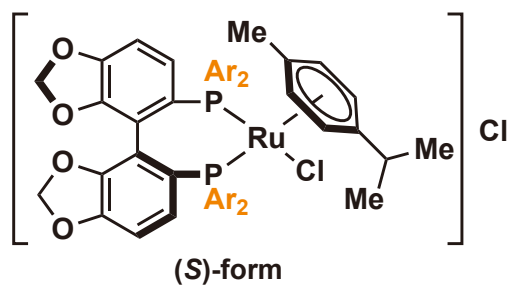
E. S. Bronze-Uhlea, M. I. Sairrea, P. M. Donatea, D. Frederico, *J. Mol. Catal. A Chem.* **2006**, 259, 103.



V. H. Rane, D. Tas, R. F. Parton, P. A. Jacobs, *Catal. Lett.* **1996**, 41, 111.

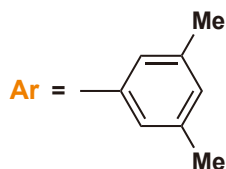
Ruthenium Complex Catalysts for Asymmetric Hydrogenation of Olefins and Functionalized Ketones

Ruthenium-segphos® Catalysts



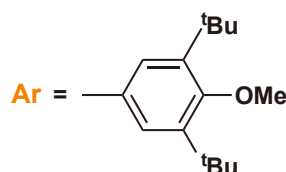
[RuCl(*p*-cymene)((*S*)-segphos®)]Cl
200mg / 1g [R0155]

[RuCl(*p*-cymene)((*R*)-segphos®)]Cl
200mg / 1g [R0154]



[RuCl(*p*-cymene)((*R*)-dm-segphos®)]Cl
200mg / 1g [R0156]

[RuCl(*p*-cymene)((*S*)-dm-segphos®)]Cl
200mg / 1g [R0157]



[RuCl(*p*-cymene)((*S*)-dtbm-segphos®)]Cl
200mg / 1g [R0159]

[RuCl(*p*-cymene)((*R*)-dtbm-segphos®)]Cl
200mg / 1g [R0158]

T. Saito, T. Yokozawa, T. Ishizaki, T. Moroi, N. Sayo, T. Miura H. Kumobayashi, *Adv. Synth. Catal.* **2001**, 343, 264.

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