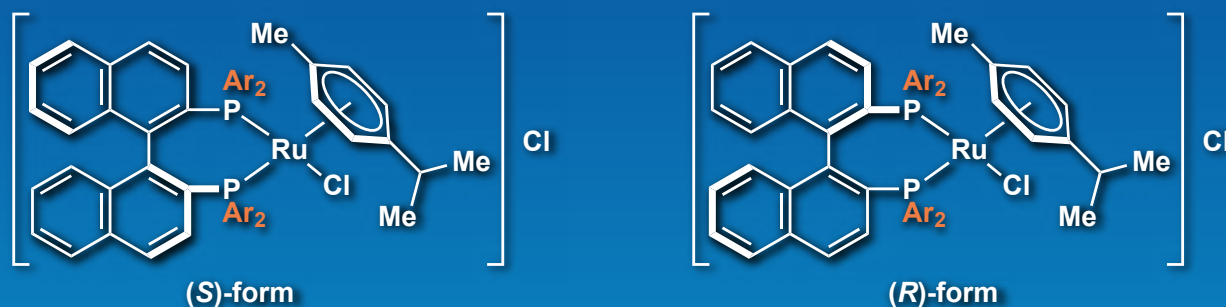
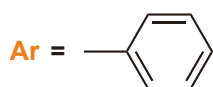


# Ruthenium Complex Catalysts for Asymmetric Hydrogenation of Olefins and Functionalized Ketones



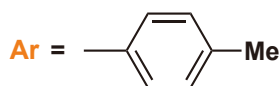
## Advantages

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



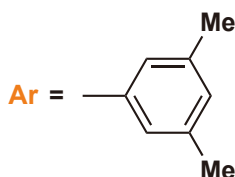
[RuCl(*p*-cymene)((*S*)-binap)]Cl  
200mg / 1g [R0147]

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



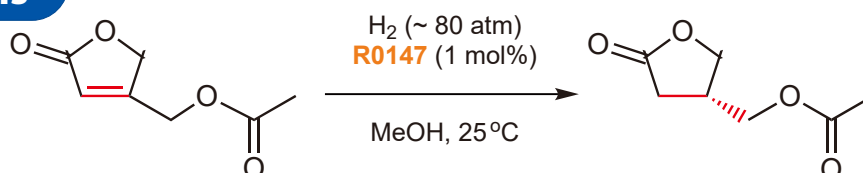
[RuCl(*p*-cymene)((*S*)-tolbinap)]Cl  
200mg / 1g [R0149]

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

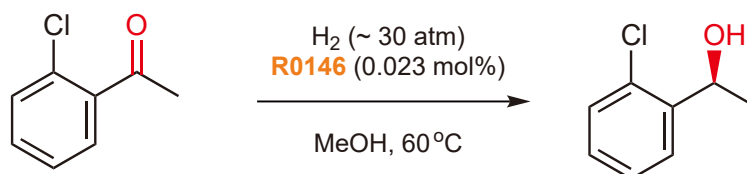


[RuCl(*p*-cymene)((*S*)-xylbinap)]Cl  
200mg / 1g [R0151]

## Applications



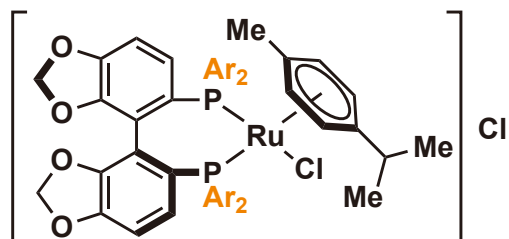
Reference E. S. Bronze-Uhlea, M. I. Sairrea, P. M. Donatea, D. Frederico, *J. Mol. Catal. A Chem.* **2006**, 259, 103.  
DOI: <https://doi.org/10.1016/j.molcata.2006.05.066>



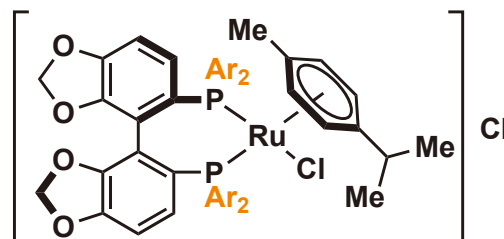
Reference V. H. Rane, D. Tas, R. F. Parton, P. A. Jacobs, *Catal. Lett.* **1996**, 41, 111.  
DOI: <https://doi.org/10.1007/BF00811721>

# Ruthenium Complex Catalysts for Asymmetric Hydrogenation of Olefins and Functionalized Ketones

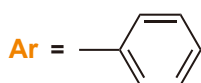
## Ruthenium-segphos® Catalysts



(S)-form

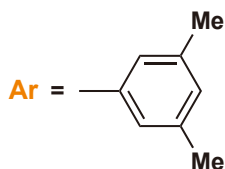


(R)-form



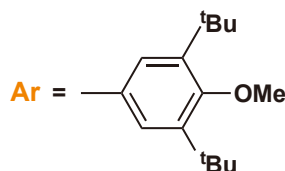
**[RuCl(*p*-cymene)((*S*)-segphos®)]Cl**  
200mg / 1g [R0155]

**[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]

**Reference** T. Saito, T. Yokozawa, T. Ishizaki, T. Moroi, N. Sayo, T. Miura H. Kumobayashi, *Adv. Synth. Catal.* **2001**, 343, 264.  
DOI: [https://doi.org/10.1002/1615-4169\(20010330\)343:3%3C264::AID-ADSC264%3E3.0.CO;2-T](https://doi.org/10.1002/1615-4169(20010330)343:3%3C264::AID-ADSC264%3E3.0.CO;2-T)

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asymmetric hydrogenation



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