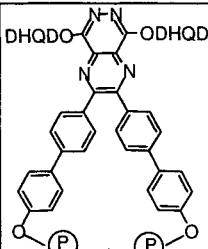
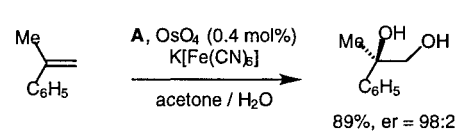
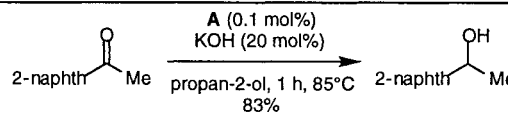
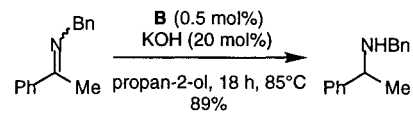
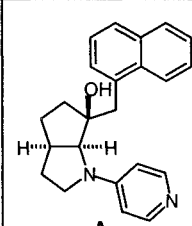
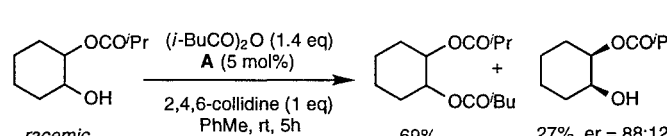


SYNTHESIS ALERTS

Synthesis Alerts is a new monthly feature to help readers of Synthesis keep abreast of new reagents, catalysts, ligands, chiral auxiliaries, and protecting groups which have appeared in the recent literature. Emphasis is placed on new developments but established reagents, catalysts etc are also covered if they are used in novel and useful reactions. In each abstract, a specific example of a transformation is given in a concise format designed to aid visual retrieval of information.

Synthesis Alerts is a personal selection by Paul Blakemore, Brian Dymock, Philip Hall, Philip Kocienski, J.-Y. Le Brazidec and Alessandro Pontiroli of the University of Glasgow. The journals regularly covered by the abstractors are: *Angewandte Chemie International Edition*, *Bulletin de la Societe Chimie de France*, *Bulletin of the Chemical Society of Japan*, *Chemische Berichte*, *Chemistry Letters*, *Helvetica Chimica Acta*, *Journal of Organic Chemistry*, *Journal of Organometallic Chemistry*, *Journal of the American Chemical Society*, *Liebigs Annalen*, *Tetrahedron Letters*.

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| MeO-Polyethyleneglycol-Bound DHQ and DHQD Ligands | | Catalyst |
|--|---|---|
| <p>Asymmetric dihydroxylation with the title polymer-modified ligand yields diols with comparable enantioselectivity to the original Sharpless system (up to 98:2 er).</p> <p>C. Bolm, A. Gerlach <i>Angew. Chem. Int. Ed. Engl.</i> 1997, <i>36</i>, 741</p> |  |  <p>89%, er = 98:2</p> <p>Four further examples are reported with results comparable to homogeneous phase catalysis conditions. The polymer supported catalyst is easily recovered by filtration.</p> |
| Ruthenium Hydride and Dihydride Phosphine Complexes | | Catalyst |
| <p>The title complexes act as very active catalysts for transfer hydrogenation of ketones and imines by propan-2-ol.</p> <p>E. Mizushima, M. Yamaguchi, T. Yamagishi <i>Chem. Lett.</i> 1997, 237.</p> | <p>RuHCl(PPh₃)₃ A</p> <p>RuH₂(PPh₃)₄ B</p> |  <p>83%</p>  <p>89%</p> <p>8 examples of ketones, 7 examples of imines (yields 50-96%). Using more catalyst, the reaction may be performed without any KOH.</p> |
| (1S,5R,8S)-8-Hydroxy-8-(β-naphthylmethyl)-2-(4-pyridyl)-2-azabicyclo[3.3.0]octane | | Catalyst |
| <p>Nonenzymatic kinetic resolution of racemic alcohols through an induced fit process.</p> <p>T. Kawabata, M. Nagato, K. Takasu, K. Fuji <i>J. Am. Chem. Soc.</i> 1997, <i>119</i>, 3169.</p> |  |  <p>69% + 27%, er = 88:12</p> <p>The influence of ring size (4 examples) and the nature of the ester functional group (7 examples) has been studied.</p> |

