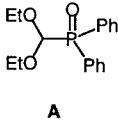
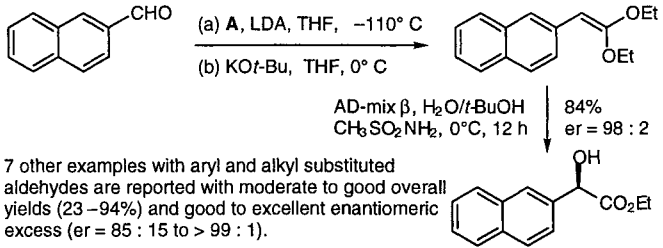

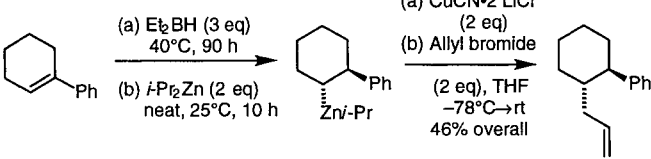
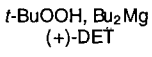
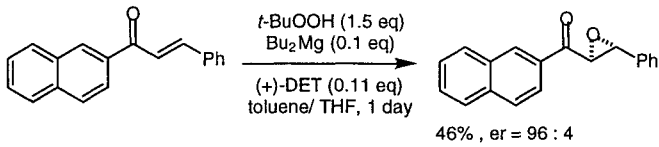


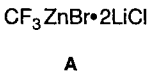
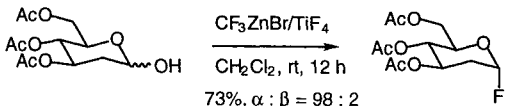
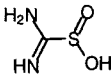
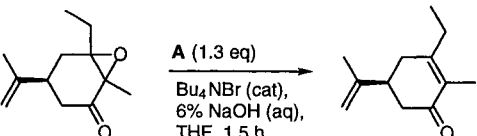
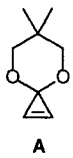
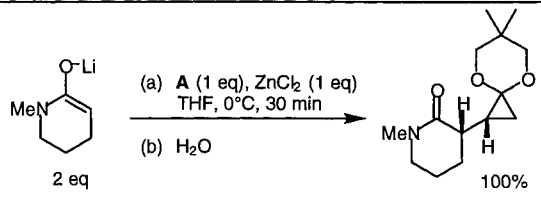
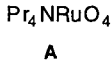
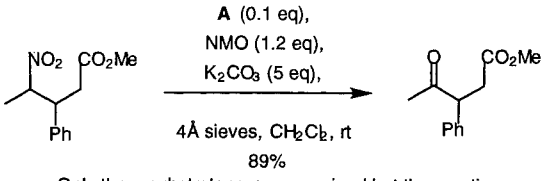
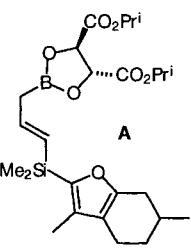
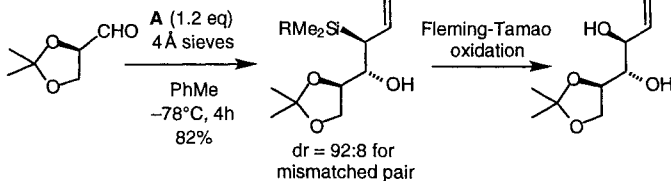
SYNTHESIS ALERTS

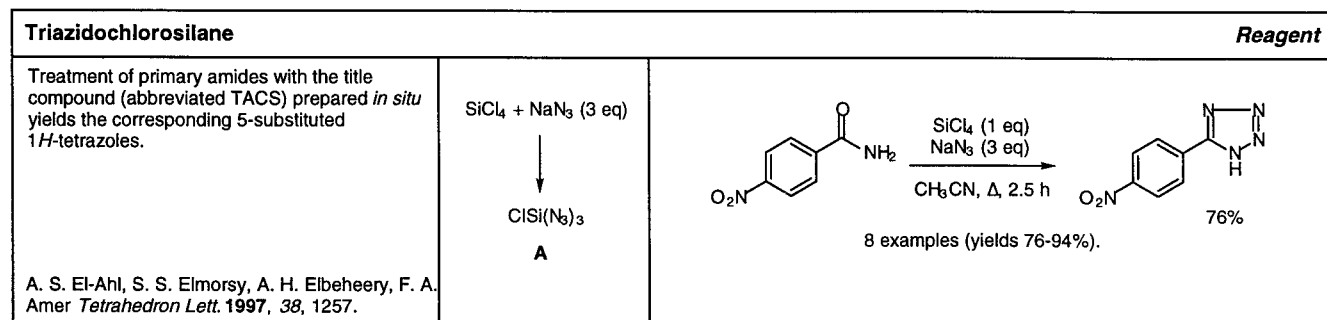
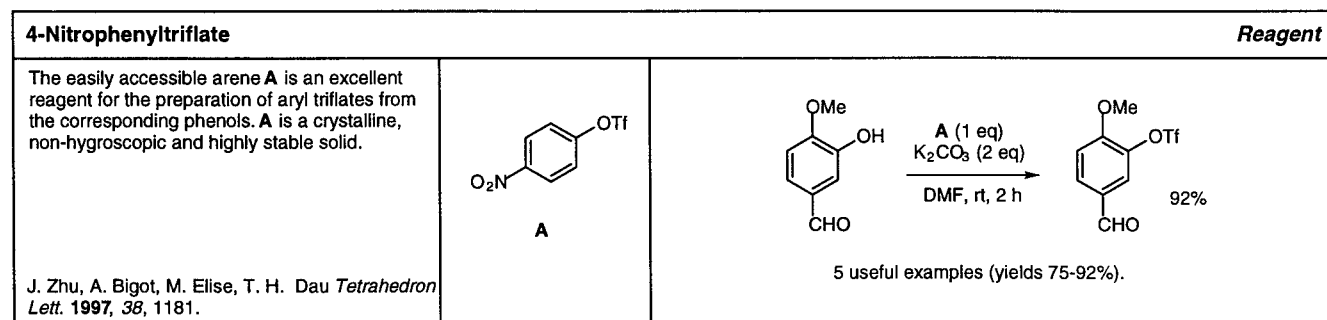
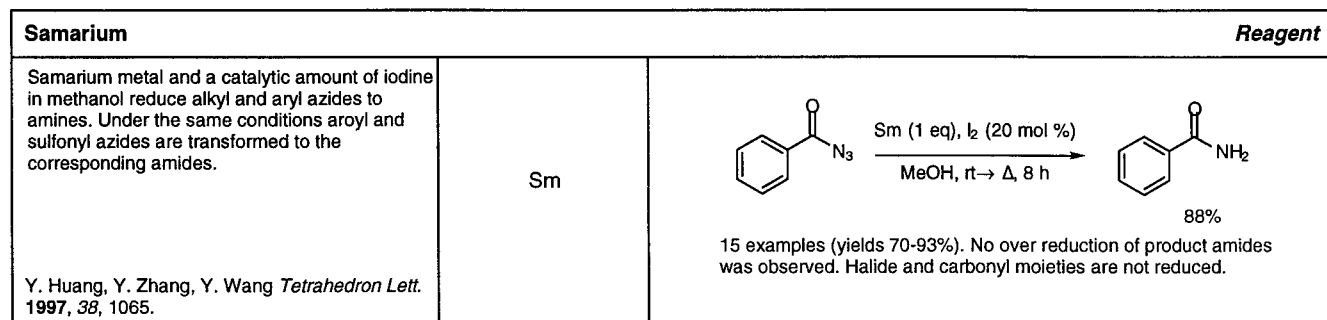
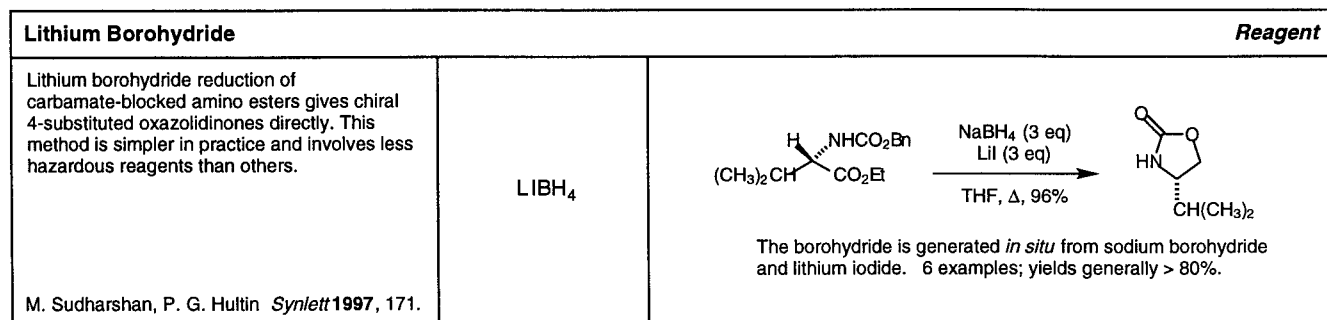
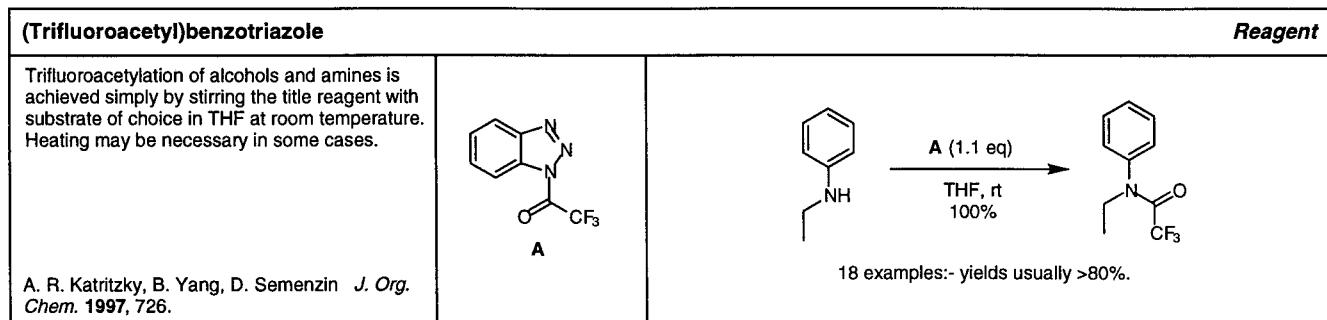
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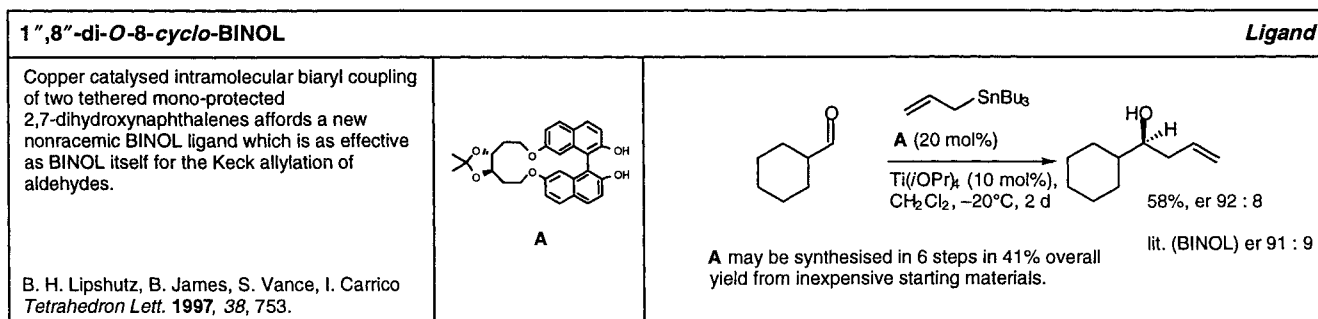
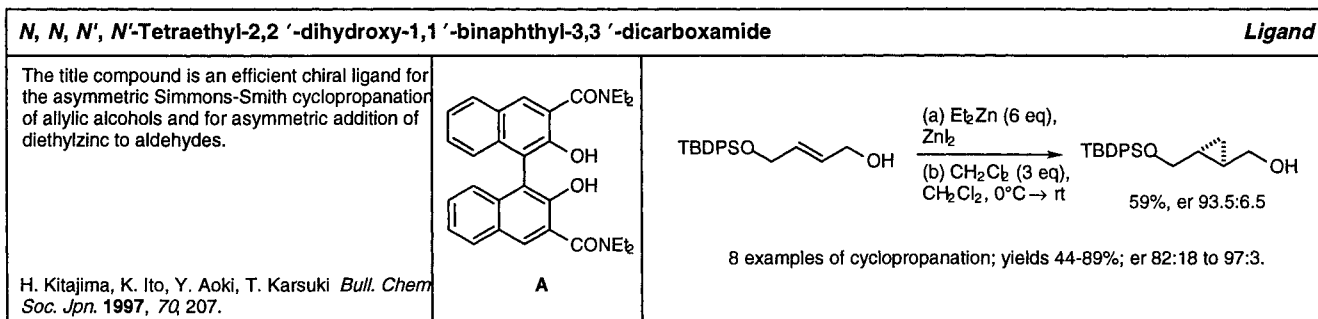
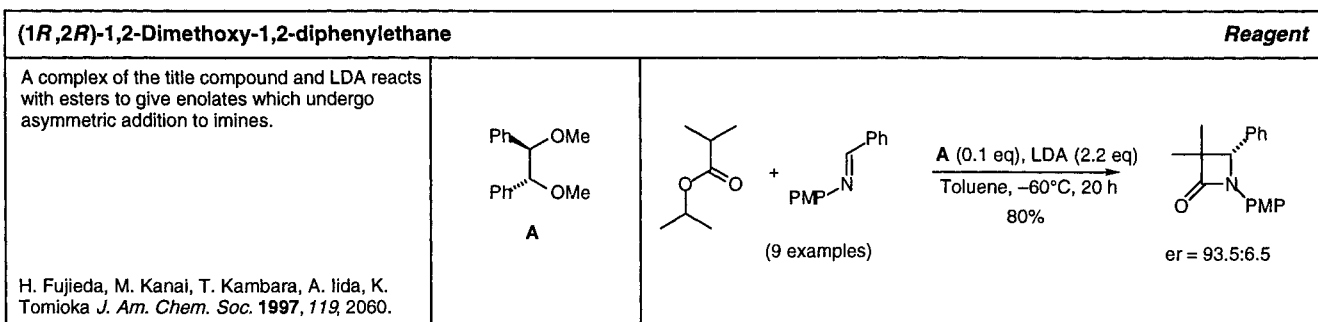
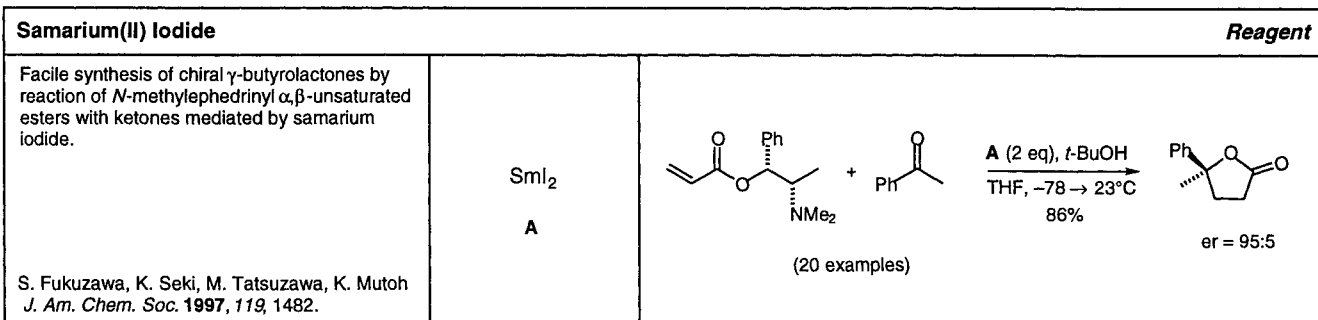
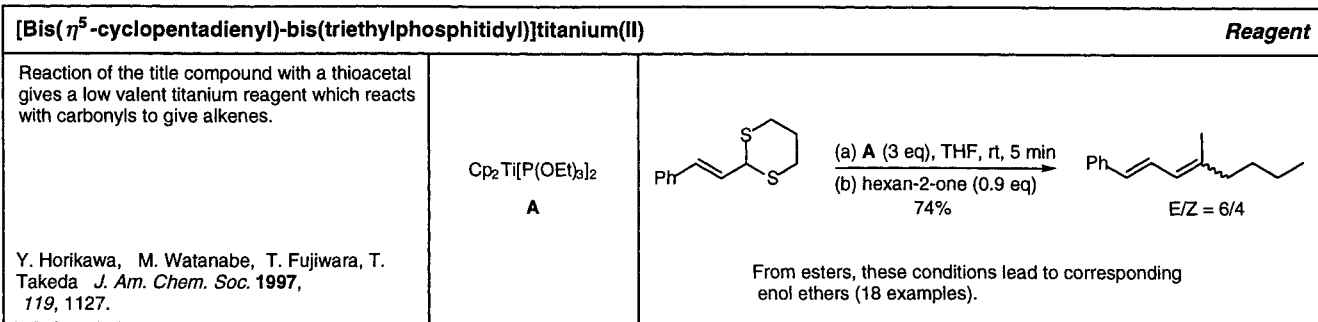
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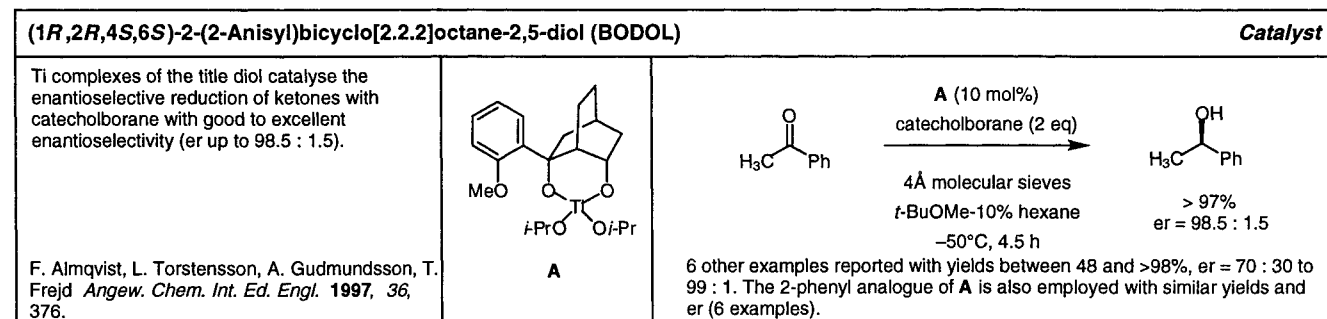
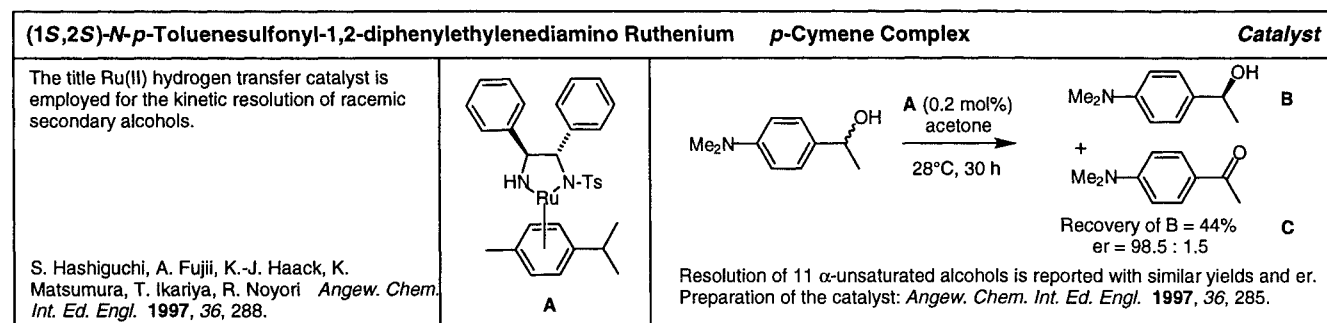
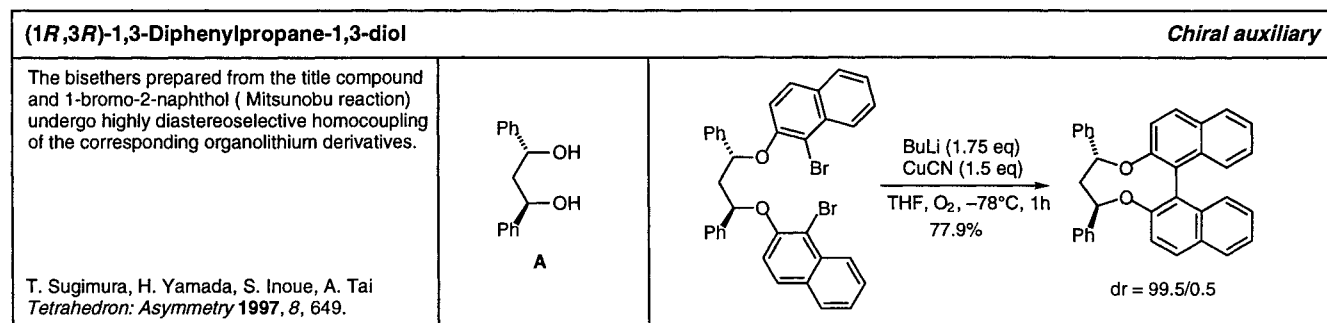
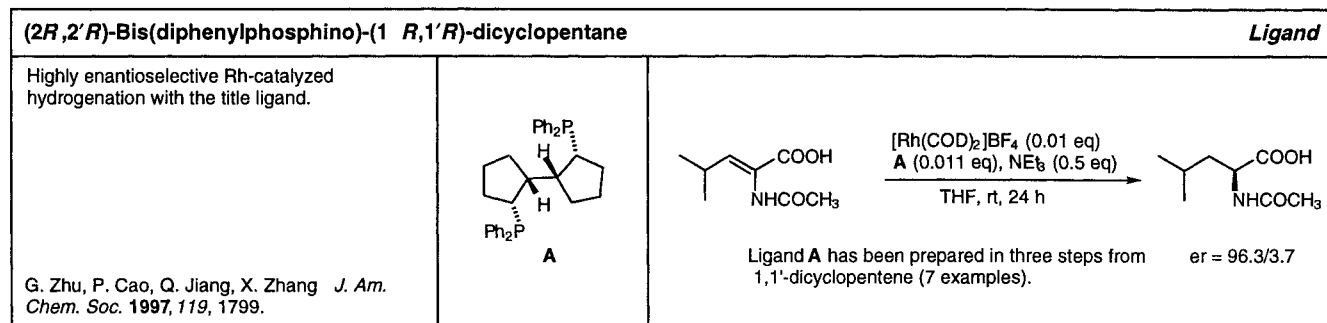
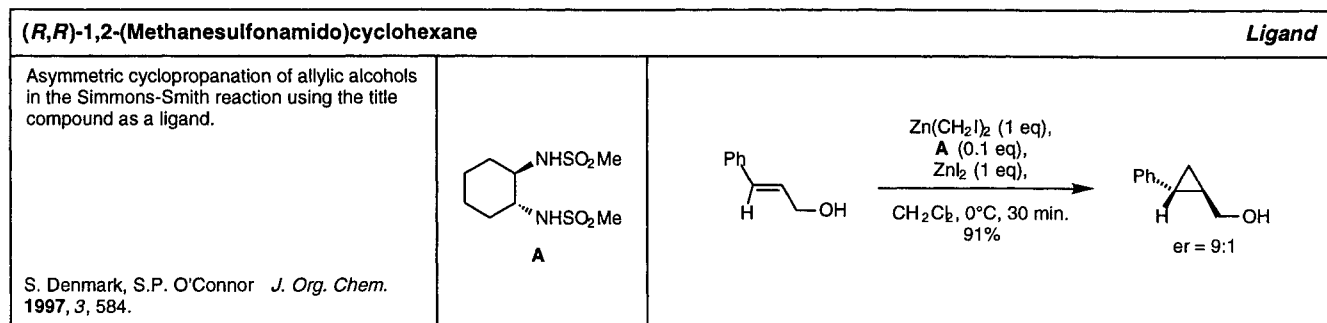
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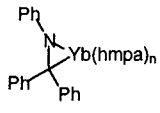
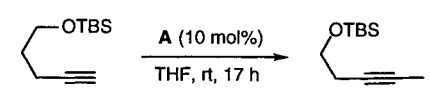
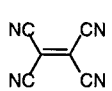
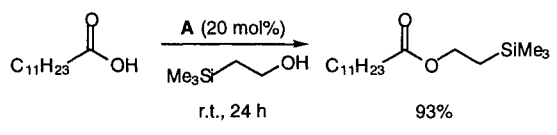

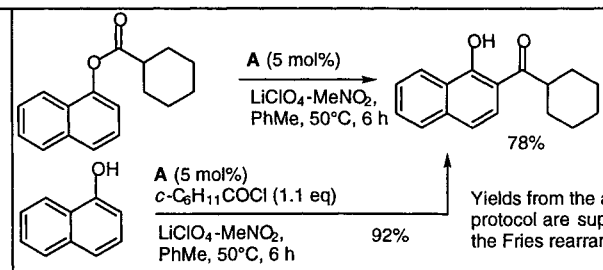

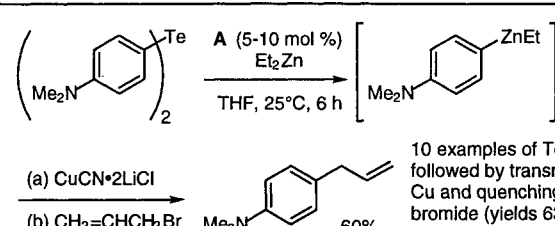
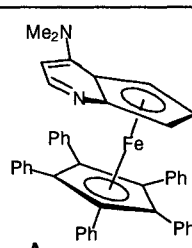
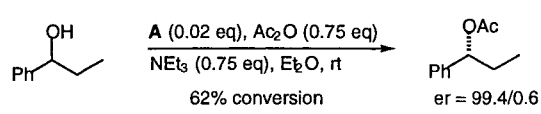
(Diethoxymethyl)diphenylphosphine Oxide		Reagent
<p>Ketene acetals formed from Horner-Wittig reaction of the title compound with aldehydes undergo Sharpless asymmetric dihydroxylation to give homo-chiral α-hydroxy esters.</p> <p>A. Kirschning, G. Dräger, A. Jung <i>Angew. Chem. Int. Ed. Engl.</i> 1997, <i>36</i>, 253.</p>	 <p style="text-align: center;">A</p>	 <p>7 other examples with aryl and alkyl substituted aldehydes are reported with moderate to good overall yields (23–94%) and good to excellent enantiomeric excess (er = 85 : 15 to > 99 : 1).</p>
Diisopropylzinc		Reagent
<p>Boron-zinc exchange using the title compound generates diastereomerically pure cycloalkylzinc compounds which react with carbon electrophiles in the presence of CuCN•2 LiCl.</p> <p>L. Micouin, M. Oestreich, P. Knochel <i>Angew. Chem. Int. Ed. Engl.</i> 1997, <i>36</i>, 245.</p>		 <p>5 other examples with moderate overall yields (36–57%) and good diastereoselectivity (<i>trans</i> : <i>cis</i> = 90 : 10 to 98 : 2).</p>
Magnesium <i>tert</i> -Butyl Peroxide		Reagent
<p>Asymmetric epoxidation of chalcone derivatives with <i>tert</i>-butyl hydroperoxide in the presence of (+)-diethyl tartrate and Bu₂Mg proceeds with moderate yields and good stereoselectivity.</p> <p>C. L. Elston, R. F. W. Jackson, S. J. F. MacDonald, P. J. Murray <i>Angew. Chem. Int. Ed. Engl.</i> 1997, <i>36</i>, 410.</p>		 <p>4 other examples, yields = 36–61%, er = 90.5 : 9.5 to 97 : 3.</p>

Trifluoromethylzinc Bromide		Reagent
<p>Pyranosyl fluorides are prepared by treatment of peracetylated pyranoses and pyranosyl bromides with the title reagent.</p>		 <p>73%, $\alpha : \beta = 98 : 2$</p> <p>4 other examples with pyranoses and 5 with glycosyl bromides are reported (yields = 65-83%, $\alpha : \beta = 98 : 2$ to 100% β).</p>
R. Miethchen, C. Hager, M. Hein <i>Synthesis</i> 1997 , 159.		
Aminoiminomethanesulfonic Acid		Reagent
<p>Deoxygenation of α, β-epoxy ketones may be achieved with the title reducing agent under phase transfer conditions.</p>		 <p>6 examples; yields generally >85%</p>
R. B. des Santos, T. J. Brockson, U. Brochson <i>Tetrahedron Lett.</i> 1997 , 38, 745.		
6,6-Dimethyl-4,8-dioxaspiro[2,5]oct-1-ene		Reagent
<p>Zinc enolates of esters, amides and hydrazones add diastereoselectively to the title compound.</p>		 <p>16 examples. Yields normally >80%. Ratio of diastereomers normally > 96:4.</p>
E. Nakamura, K. Kubota <i>J. Org. Chem.</i> 1997 , 4, 792.		
Tetrapropylammonium Perruthenate		Reagent
<p>Transmutation of secondary nitro groups to ketones with the title reagent is facile under mild conditions.</p>		 <p>Only three substrates were examined but the reaction conditions were optimised for general use.</p>
Y. Tokunaga, M. Ihara, K. Fukumoto, <i>J. Chem. Soc., Perkin Trans. 1</i> 1997 , 3, 185.		
4,5-Di(isopropoxyloxycarbonyl)- B-[[<i>(E)</i> -3'-(menthofuryl)dimethylsilyl]allyl]-1,3,2-dioxaboralane		Reagent
<p>The title compound is a more effective reagent for the <i>anti</i>-α-hydroxyallylation of aldehydes.</p>		 <p>Many examples included, together with a short synthesis of (-)-swainsonine.</p>
J.A. Hunt, W.R. Roush, <i>J. Org. Chem.</i> , 1997 , 62, 1112.		







Ytterbium (II) Aromatic Imine Dianion Complex		Catalyst
<p>The title compound catalyses the isomerisation of terminal alkynes to internal ones.</p> <p>Y. Makioka, A. Saiki, K. Takaki, Y. Taniguchi, T. Kitamura, Y. Fujiwara <i>Chem. Lett.</i> 1997, 27.</p>	 <p style="text-align: center;">A</p>	 <p>8 examples; yields 39-89% These Yb-imine complexes do not afford 1,2 and/or 2,4-diene byproducts typical of base catalysed isomerizations (e.g. with sodium alkoxides).</p>
Tetracyanoethylene		
<p>The title compound is the first π-acid catalyst for the esterification of a variety of acids.</p> <p>Y. Masaki, N. Tanaka, T. Miura <i>Chem. Lett.</i>, 1997, 55.</p>	 <p style="text-align: center;">A</p>	 <p>This study includes 12 alcohols and 13 carboxylic acids. Transesterification using A may also be accomplished but 60°C is required.</p>
Scandium Triflate		
<p>The title triflate was found to be the most efficient catalyst, from a series of group 3 and 4 metal triflates, for the Fries rearrangement of phenyl or 1-naphthyl acylates and for direct acylation of phenols and 1-naphthols with acid chlorides.</p> <p>cf A. G. M. Barrett and D. C. Braddock, <i>Chem. Commun.</i> 1997, 351, for the esterification of alcohols using the title reagent as catalyst.</p> <p>S. Kobayashi, M. Moriwaki, I. Hachiya <i>Bull. Chem. Soc. Jpn.</i> 1997, 70, 267.</p>	 <p style="text-align: center;">A</p>	 <p>Yields from the acylation protocol are superior to the Fries rearrangement.</p>
Nickel (II) Acetoacetonate		
<p>A catalyses the smooth tellurium-zinc exchange of diaryltellurides (or diarylditellurides) to the corresponding arylzinc derivatives.</p> <p>T. Stüdemann, V. Gupta, L. Engman, P. Knochel <i>Tetrahedron Lett.</i> 1997, 38, 1005.</p>	 <p style="text-align: center;">A</p>	 <p>(a) $\text{CuCN}\cdot 2\text{LiCl}$ (b) $\text{CH}_2=\text{CHCH}_2\text{Br}$</p> <p>10 examples of Te-Zn exchange followed by transmetalation to Cu and quenching with an allylic bromide (yields 63-92%). Typically diarylditellurides gave superior yields.</p>
η^5 -(Pentaphenylcyclopentadienyl)- η^5 -(4-dimethylamino-7-azaindenyl)iron(II)		
<p>Kinetic resolution of 2° alcohols is accomplished in the acylation with anhydrides using the title compound as a homochiral DMAP variant.</p> <p>J. C. Ruble, H. A. Latham, G. C. Fu <i>J. Am. Chem. Soc.</i> 1997, 119, 1492.</p>	 <p style="text-align: center;">A</p>	 <p>The phenyl groups of the η^5-cyclopentadienyl ring are crucial for good kinetic resolution (10 examples).</p>