

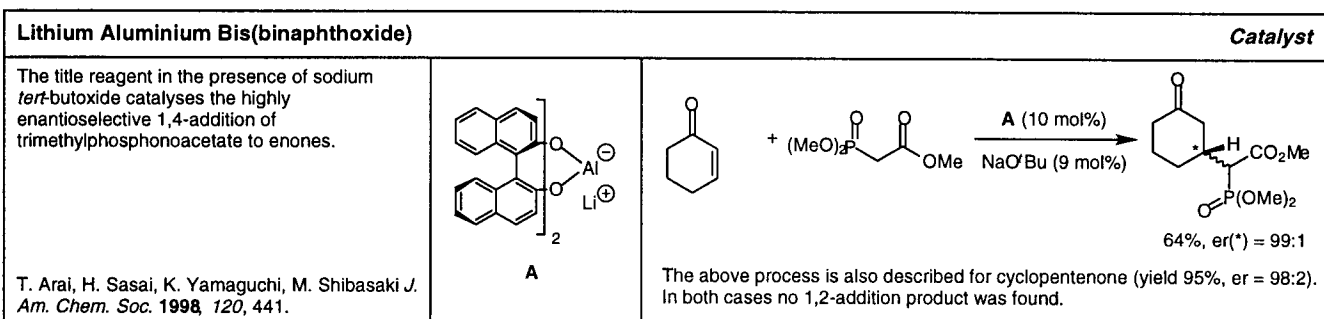
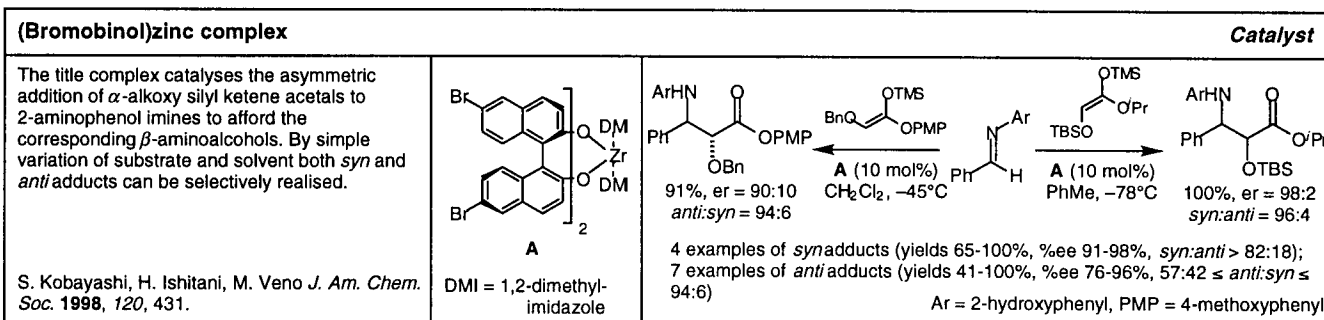
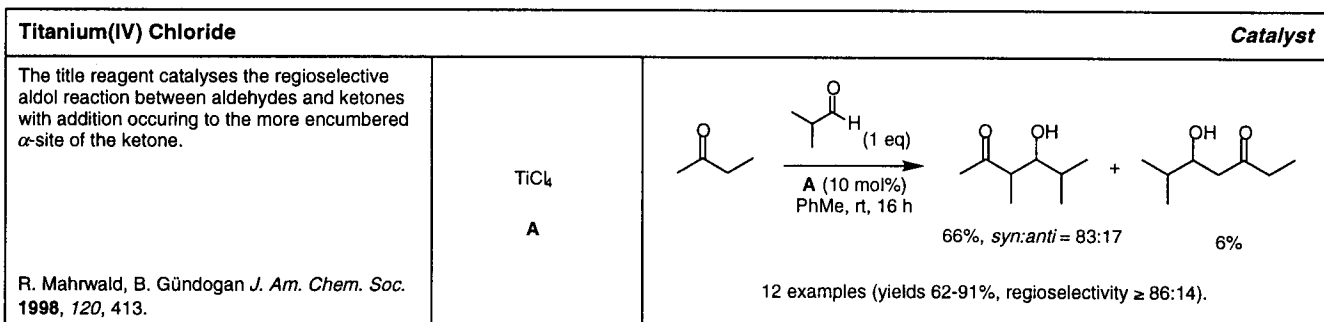
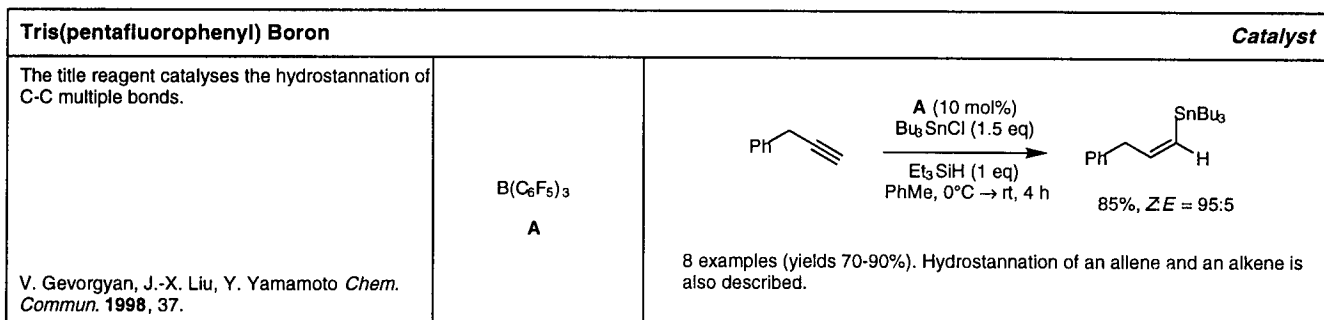
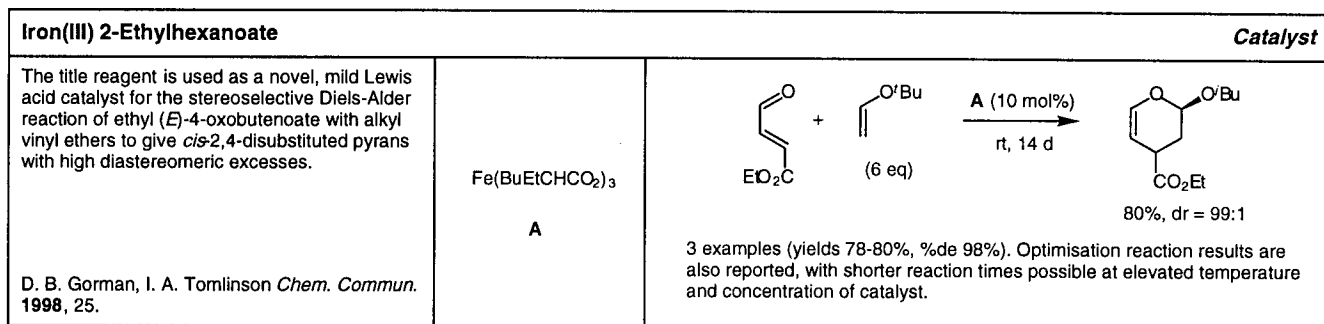
SYNTHESIS ALERTS

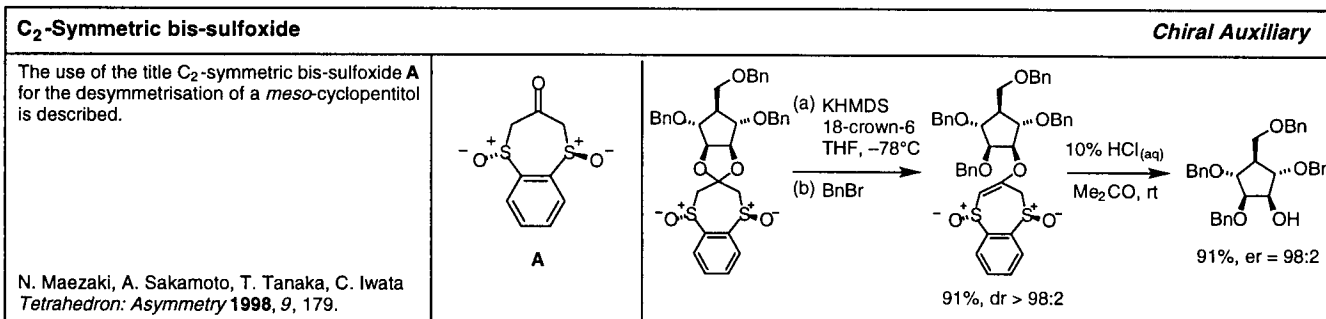
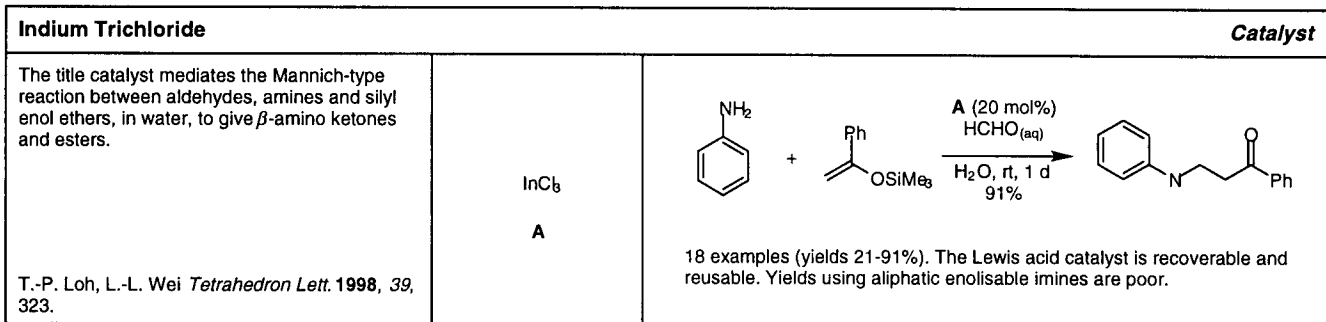
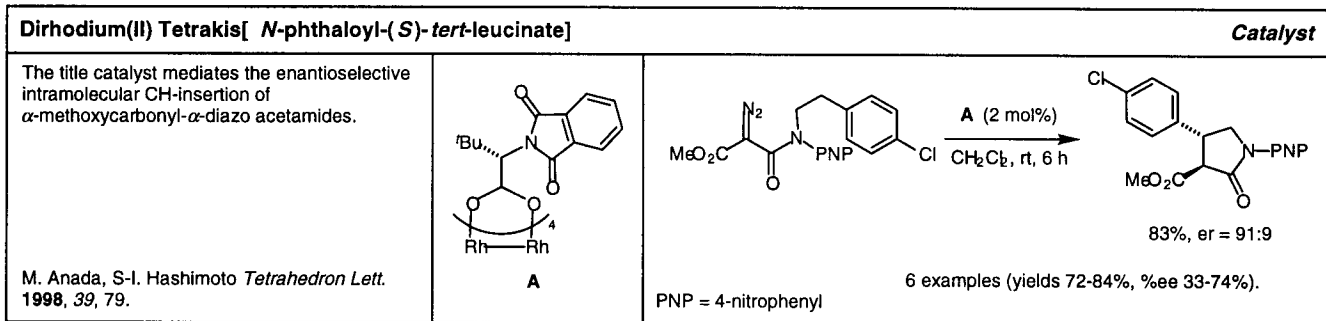
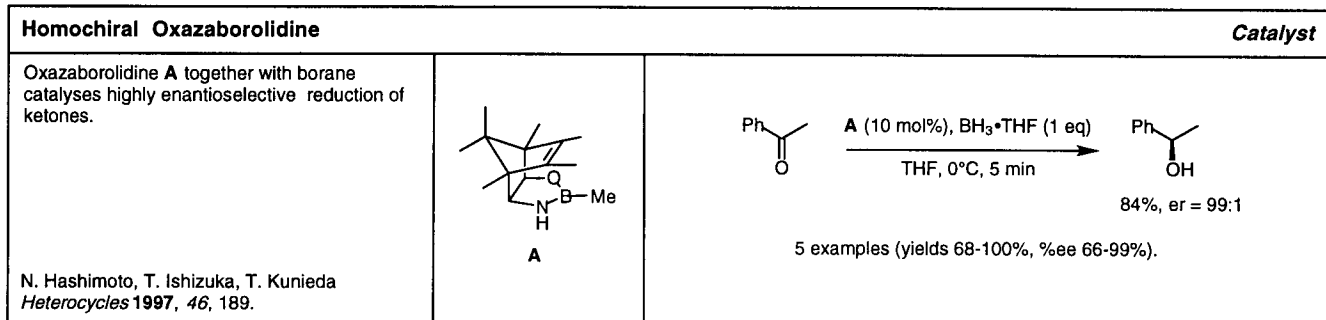
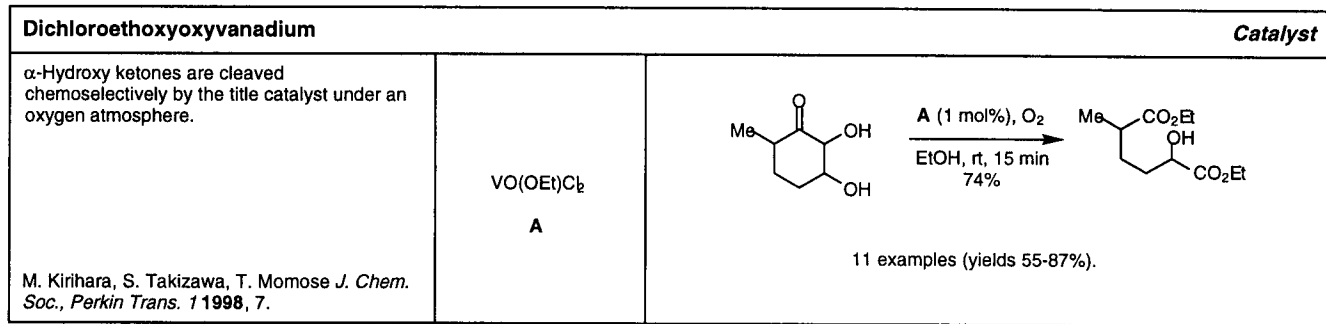
Synthesis Alerts is a monthly feature to help readers of Synthesis keep abreast of new reagents, catalysts, ligands, chiral auxiliaries, and protecting groups which have appeared in the recent literature. Emphasis is placed on new developments but established reagents, catalysts etc are also covered 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.

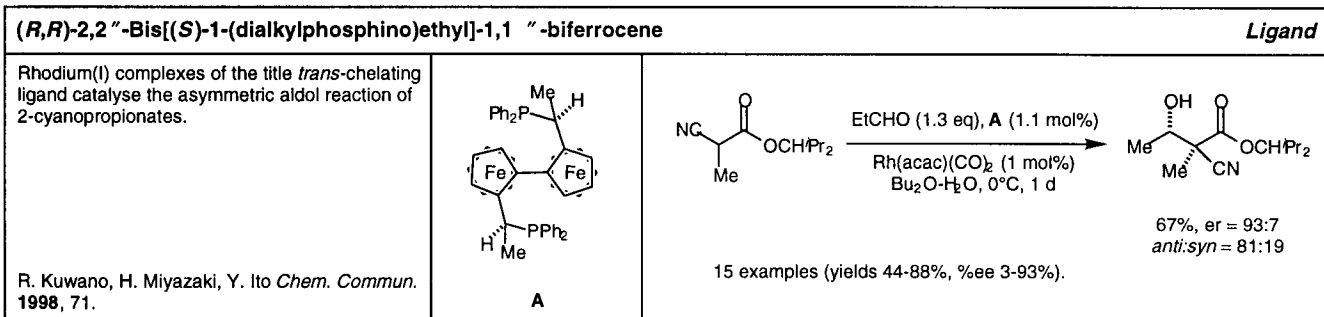
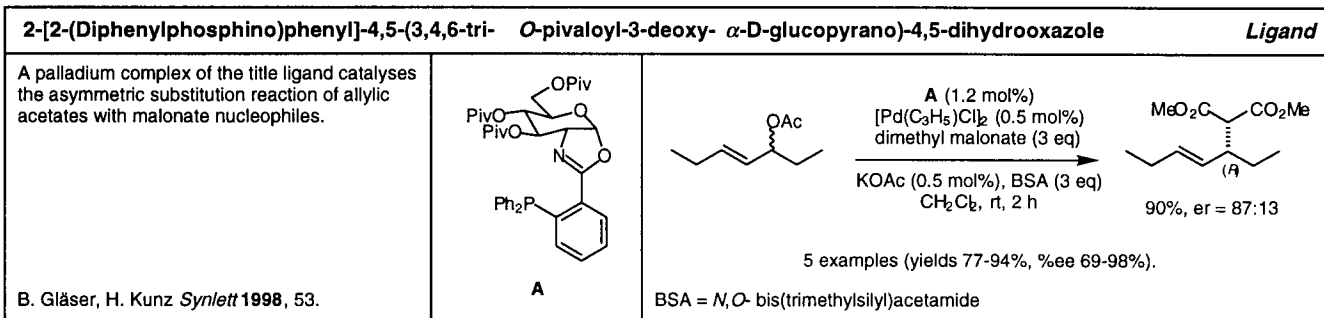
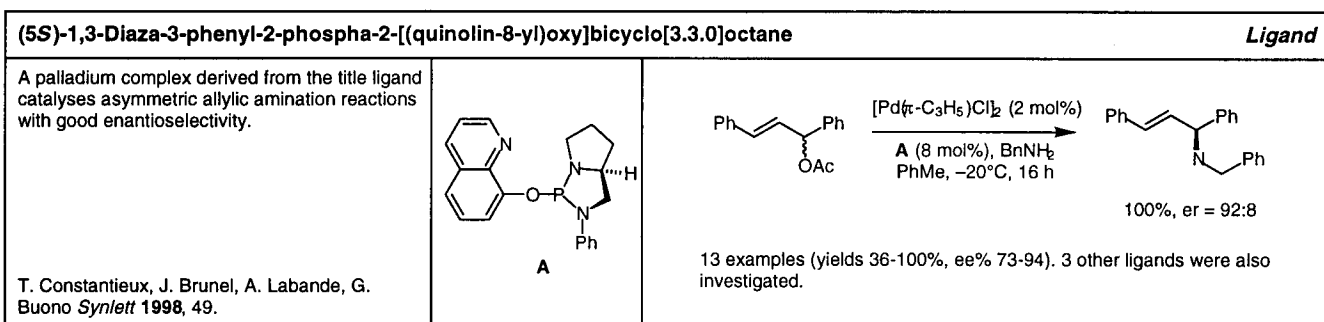
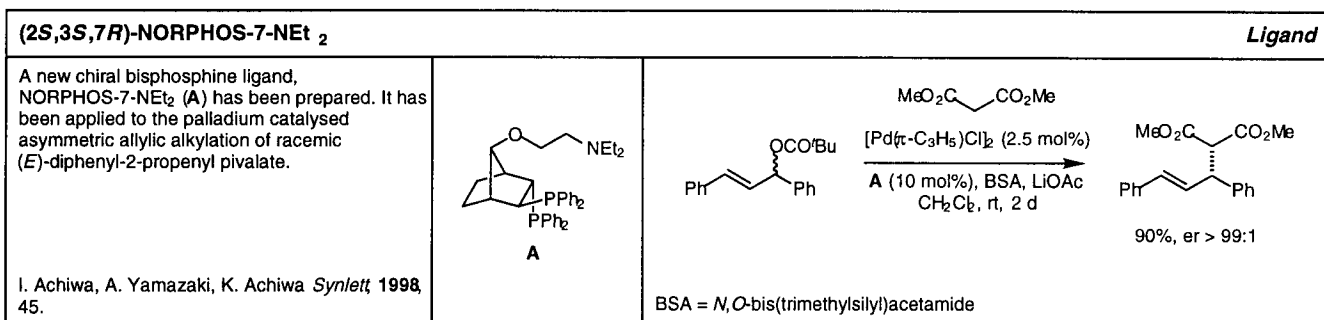
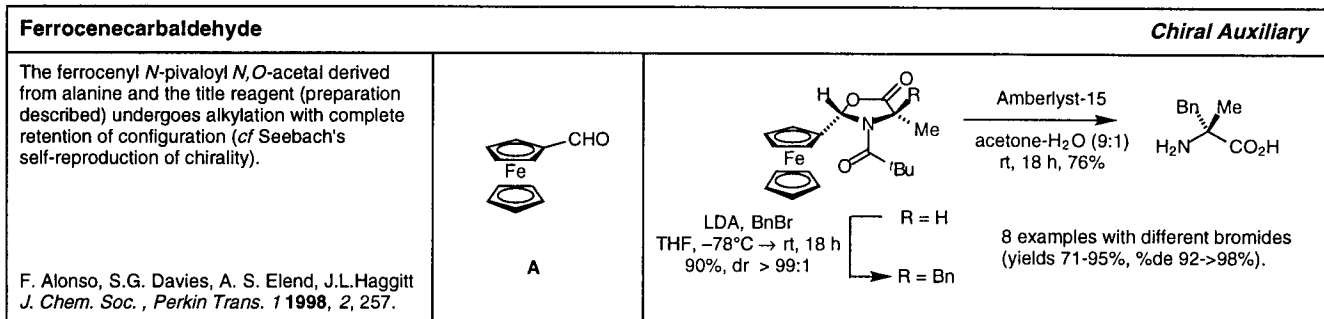
Synthesis Alerts is a personal selection by Paul Blakemore, John Christopher, Louise Lea, Philip Kocienski, J.-Y. Le Brazidec, Robert Narquizian and Christopher Smith of the University of Glasgow. The journals regularly covered by the abstractors are: *Angewandte Chemie International Edition*, *Bulletin 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*.

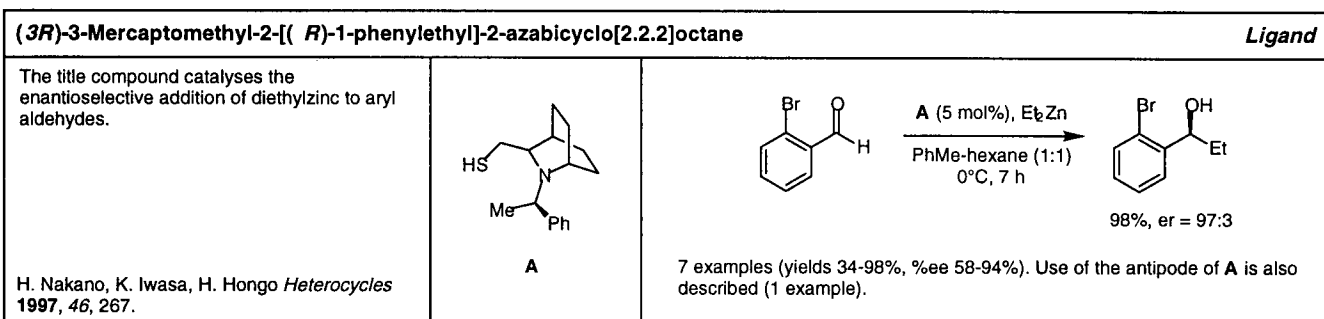
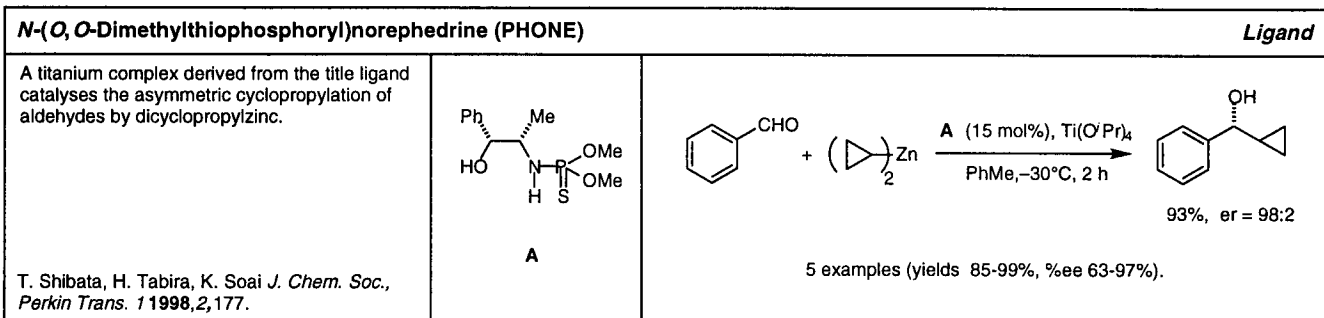
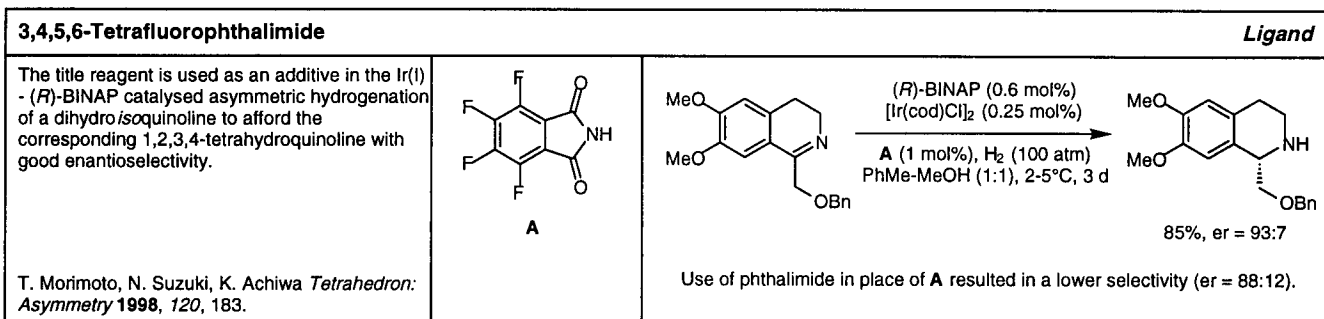
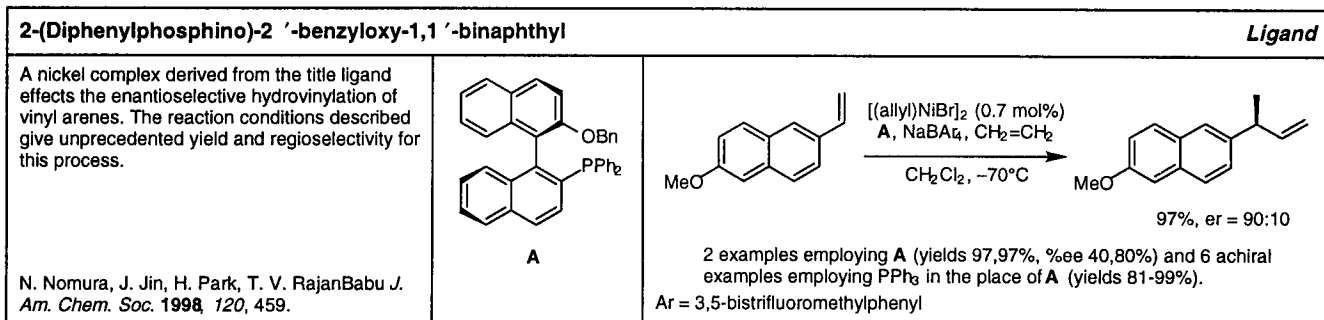
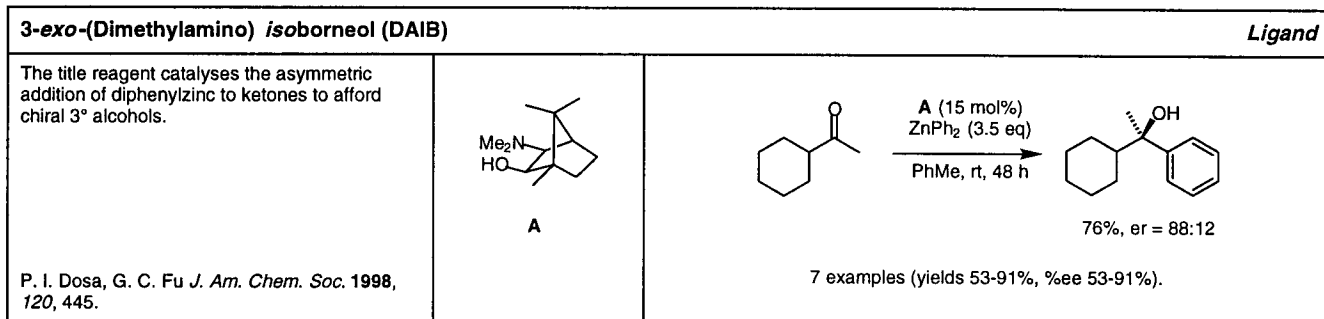
Georg Thieme Verlag does not accept responsibility for the accuracy, content, or selection of the data.

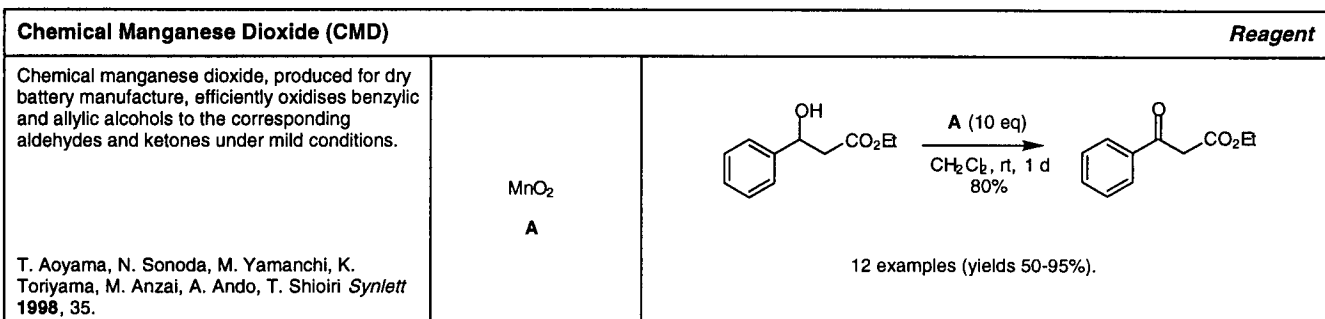
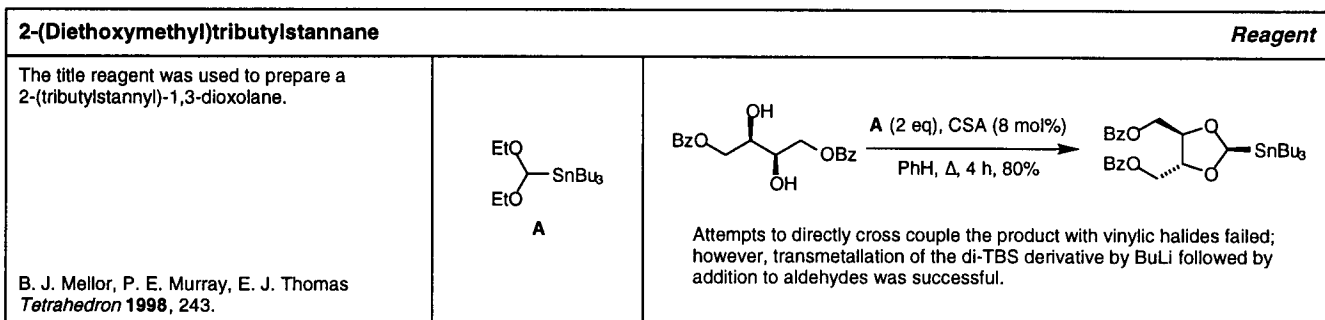
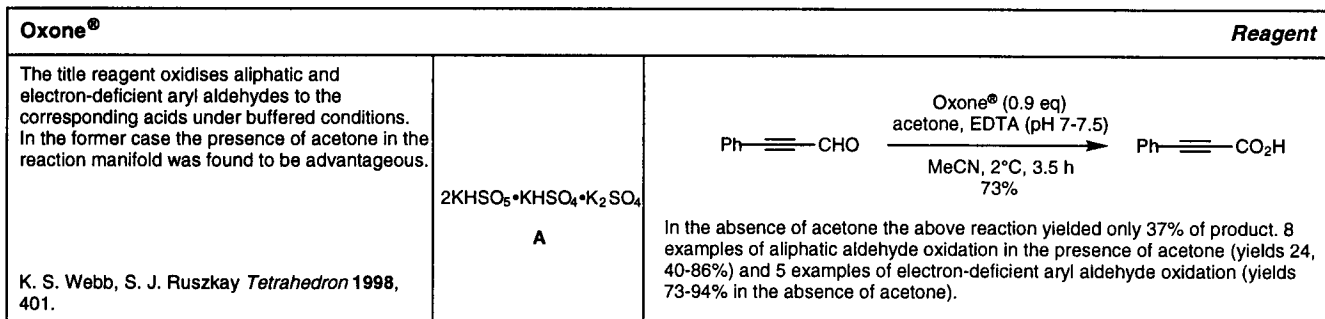
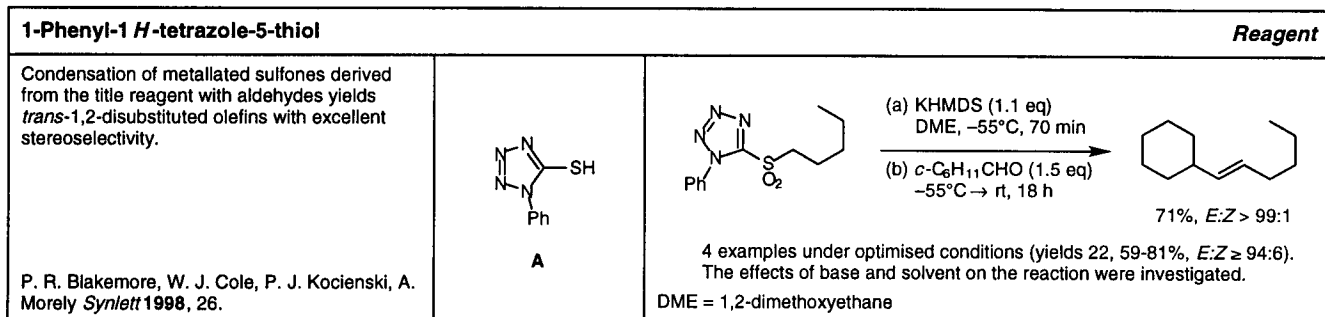
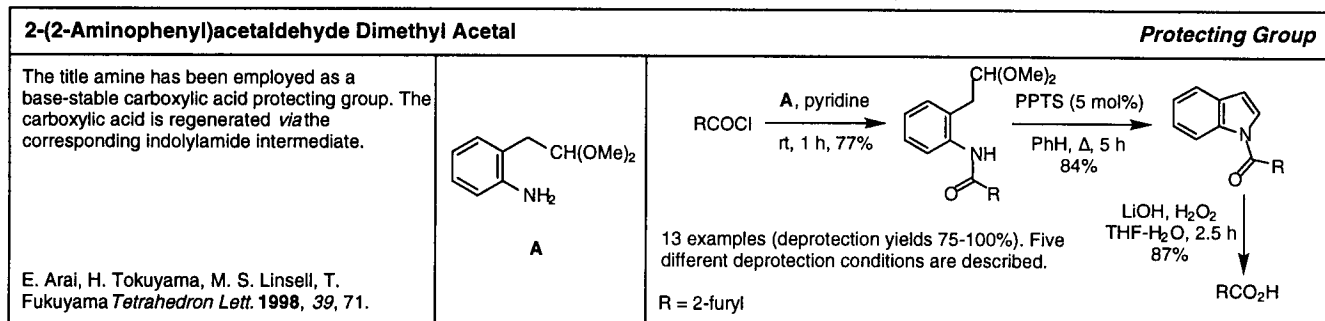
Tris(dibenzylmethido) Iron(III) Catalyst	
<p>The title reagent catalyses the dimethylation of <i>gem</i>-dichlorocyclopropanes by MeMgBr in the presence of 4-methylanisole.</p>	<p style="text-align: center;">8 examples (yields 37-73%).</p>
<p>Y. Nishi, K. Wakasugi, Y. Tanabe <i>Synlett</i> 1998, 67.</p>	<p style="text-align: center;">Fe(dbm)₃ A</p>
Chiral (Salen)Chromium(III) Complexes Catalyst	
<p>Dihydropyranones are obtained in good yields and enantioselectivities via Diels-Alder reactions catalysed by A or B.</p>	<p style="text-align: center;">7 examples (yields 65-98%, %ee = 62-93%). TBME = <i>tert</i>-butylmethylether</p>
<p>S. E. Schaus, J. Brånalt, E. N. Jacobsen <i>J. Org. Chem.</i> 1998, 63, 403.</p>	<p style="text-align: center;">R = <i>t</i>-Bu A R = OMe B</p>
Scandium(III) Trifluoromethanesulfonate Catalyst	
<p>A 3-component reaction between aldehydes, amines and allyltributyl stannane, catalysed by A is reported. The reactions proceed in water, in the absence of organic solvents, to afford homoallylic amines in high yield.</p>	<p style="text-align: center;">12 examples (yields 66-90%). SDS = sodium dodecylsulfate</p>
<p>S. Kobayashi, T. Busujima, S. Nagayama <i>Chem. Commun.</i> 1998, 19.</p>	<p style="text-align: center;">Sc(OTf)₃ A</p>











Di- <i>n</i> -butylphosphine Oxide		Reagent
<p><i>S</i>-Methyl xanthates are readily deoxygenated by the action of the title reagent and a radical initiator. The procedure removes the need for toxic organotin hydrides and can be carried out with the complete exclusion of water.</p>		<p>10 examples (yields 11-97%).</p>
<p>D. O. Jang, D.H. Cho, D. H. R. Barton <i>Synlett</i> 1998, 39.</p>		

Silica Gel / Zinc Borohydride		Reagent
<p>The title reagents effect the one-pot reductive amination of conjugated aldehydes and ketones.</p>		<p>16 examples (yields 75-90%).</p>
<p>B. C. Ranu, A. Majee, A. Sarkar <i>J. Org. Chem.</i> 1998, 63, 370.</p>		

<i>(N,O)</i> -Bis(trimethylsilyl)acetamide (BSA)		Reagent
<p>Enamines are prepared from ketones and secondary amines with the title reagent and a catalytic amount of methyl iodide.</p>		<p>13 examples (yields 0, 80-93%).</p>
<p>Y. Yamamoto, C. Matui <i>J. Org. Chem.</i> 1998, 63, 377.</p>		

Di- <i>n</i> -butyltin Dihydride / Di- <i>n</i> -butyltin Dichloride / Hexamethylphosphoramide (HMPA)		Reagent
<p>Imines are reduced in the presence of carbonyl groups to provide secondary amines. The <i>in situ</i> prepared reductant is the highly coordinated tin hydride Bu₂SnClH-HMPA</p>		<p>4 examples (yields 54-78%). The preparation of unsymmetrical tertiary amines from the tin amides resulting from hydrostannation of imines is also reported.</p>
<p>I. Shibata, T. Moriuchi-Kawakami, D. Tanizawa, T. Suwa, E. Sugiyama, H. Matsuda, A. Baba <i>J. Org. Chem.</i> 1998, 63, 383.</p>		

Di- <i>n</i> -butyltin Dihydride / Di- <i>n</i> -butyltin Dichloride / Hexamethylphosphoramide (HMPA)		Reagent
<p>Imines are reduced in the presence of carbonyl groups to provide secondary amines. The <i>in situ</i> prepared reductant is the highly coordinated tin hydride Bu₂SnClH-HMPA</p>		<p>4 examples (yields 54-78%). The preparation of unsymmetrical tertiary amines from the tin amides resulting from hydrostannation of imines is also reported.</p>
<p>I. Shibata, T. Moriuchi-Kawakami, D. Tanizawa, T. Suwa, E. Sugiyama, H. Matsuda, A. Baba <i>J. Org. Chem.</i> 1998, 63, 383.</p>		

