
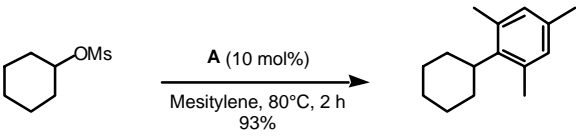
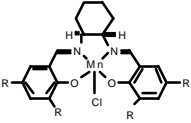
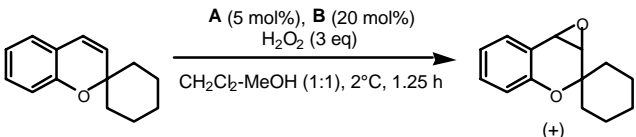
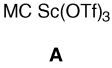
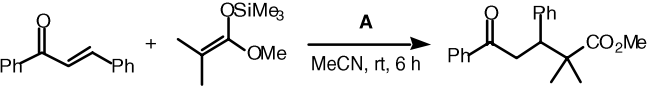


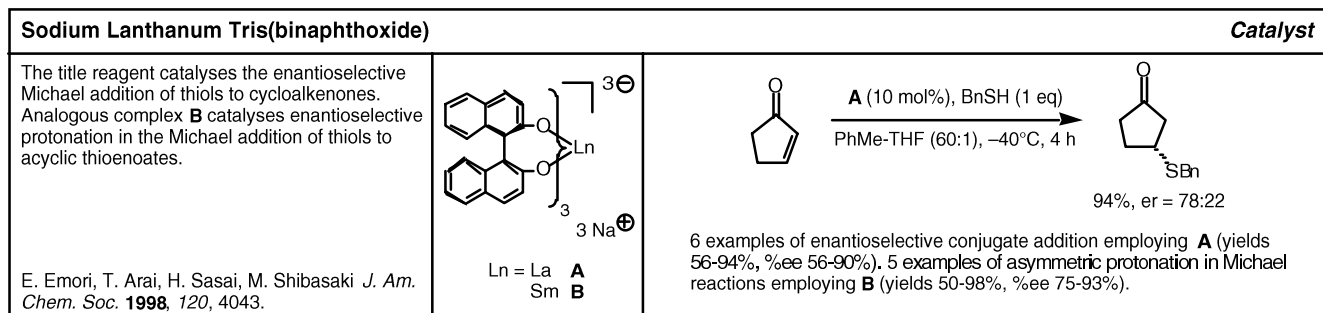
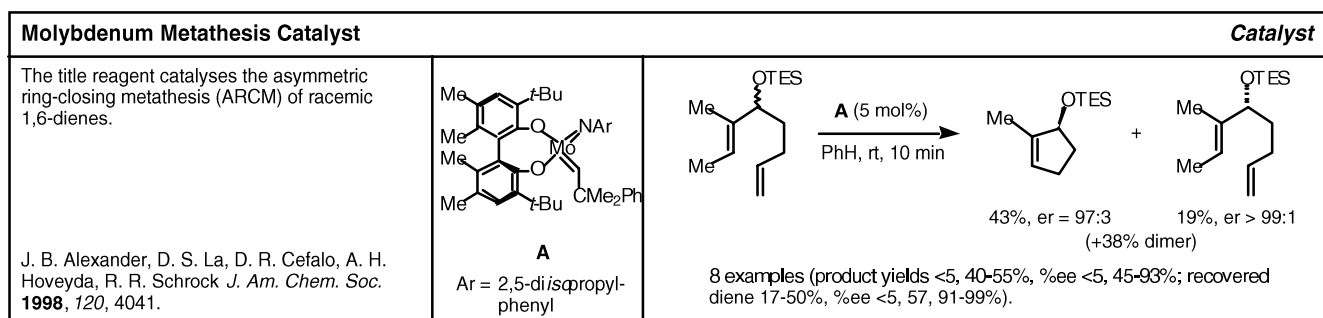
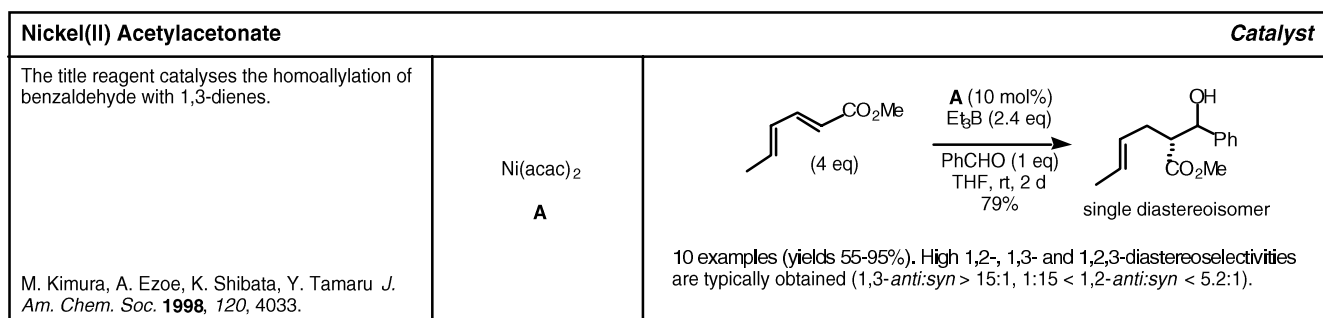
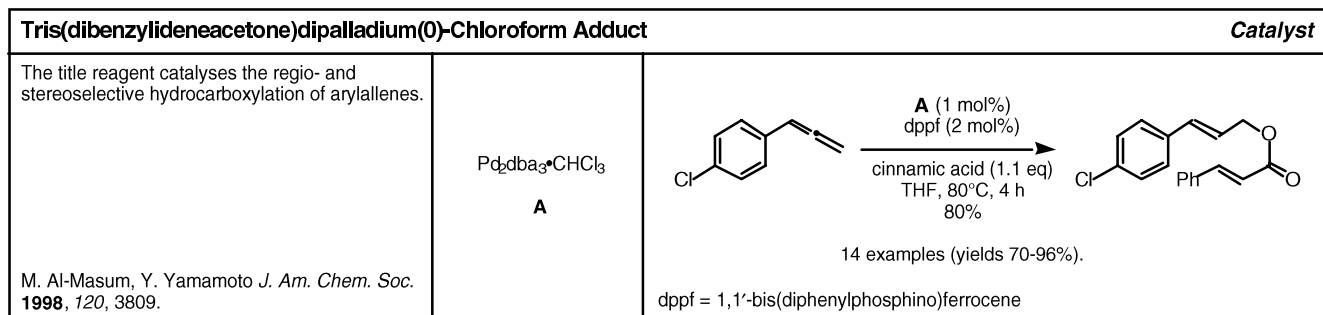
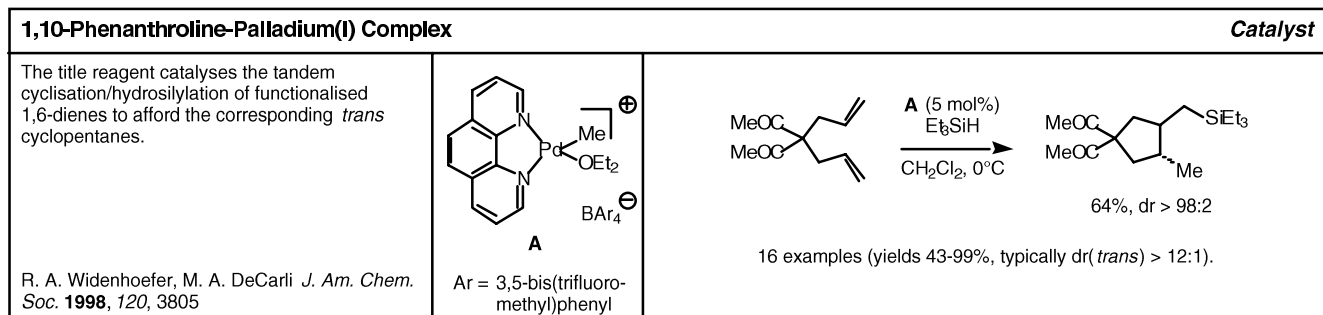
# SYNTHESIS ALERTS

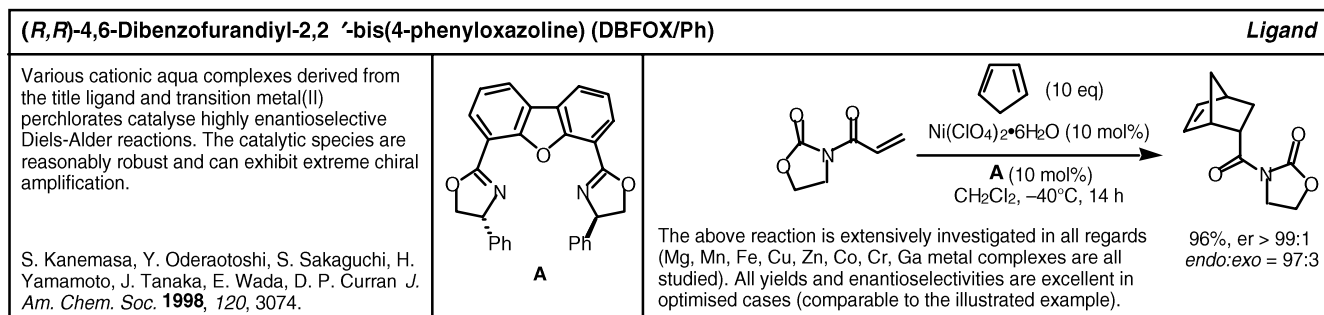
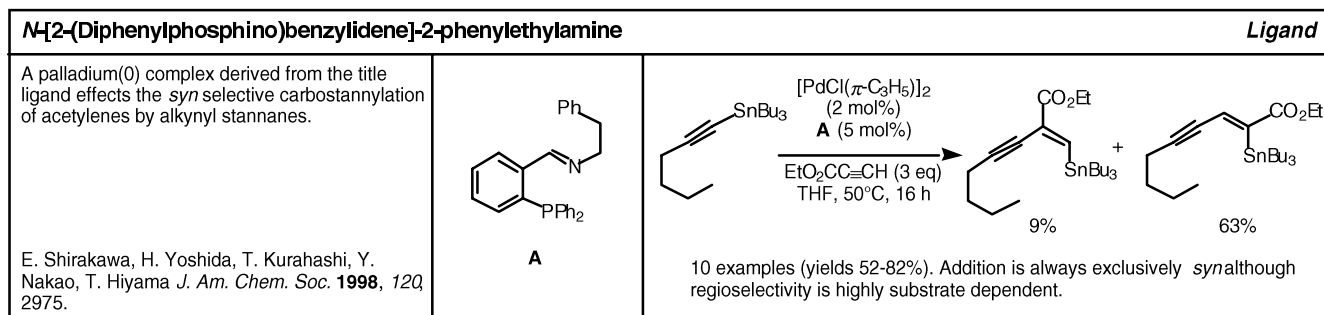
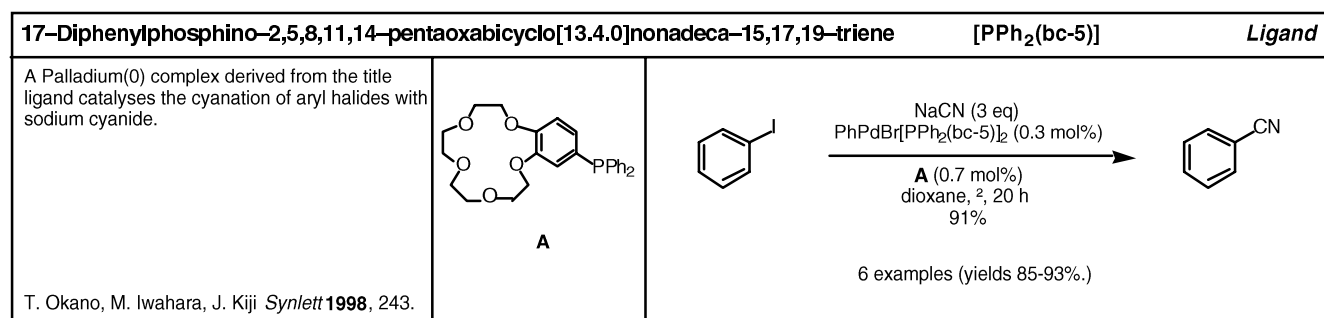
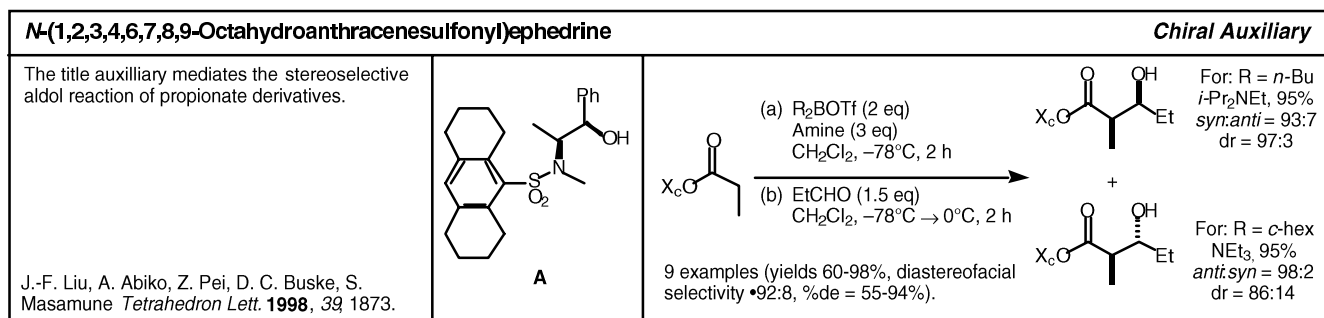
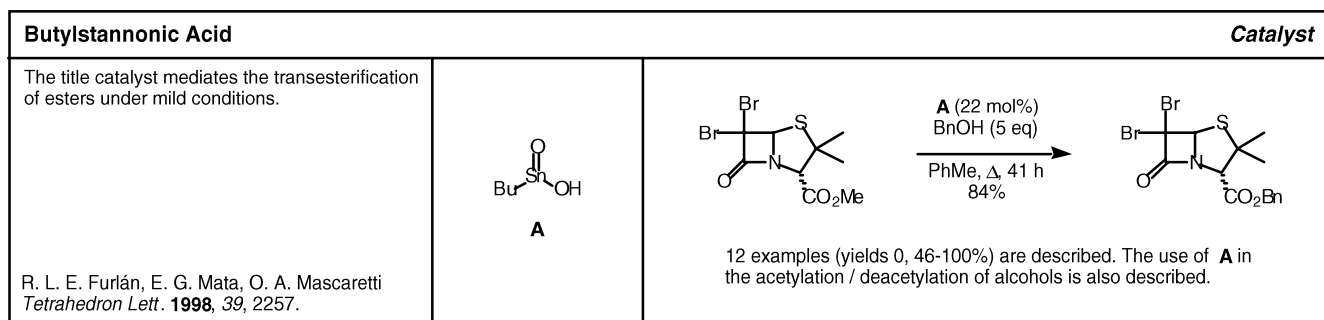
*Synthesis Alerts* is a monthly feature to help readers of Synthesis keep abreast of new reagents, catalysts, ligands, chiral auxiliaries, and protecting groups which have appeared in the recent literature. Emphasis is placed on new developments but established reagents, catalysts etc are also covered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

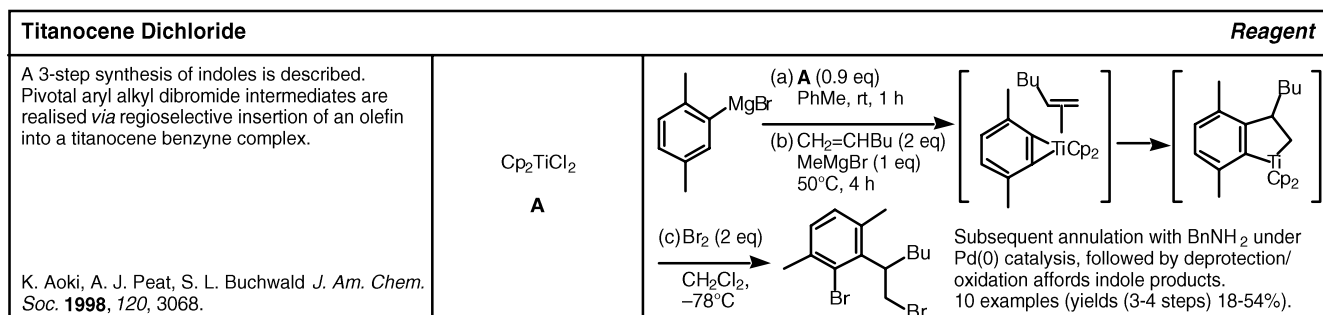
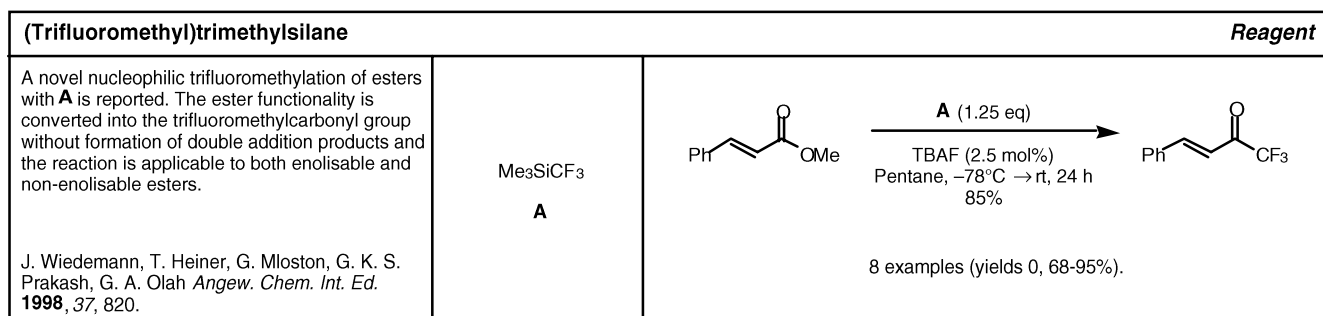
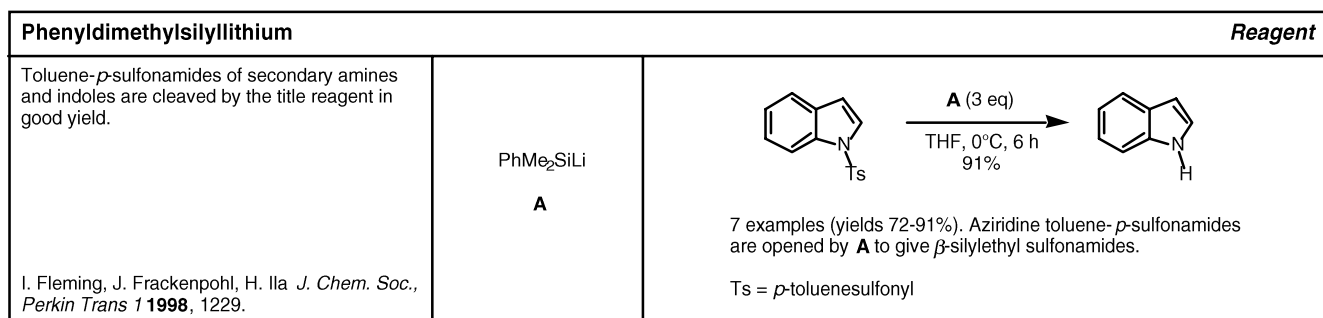
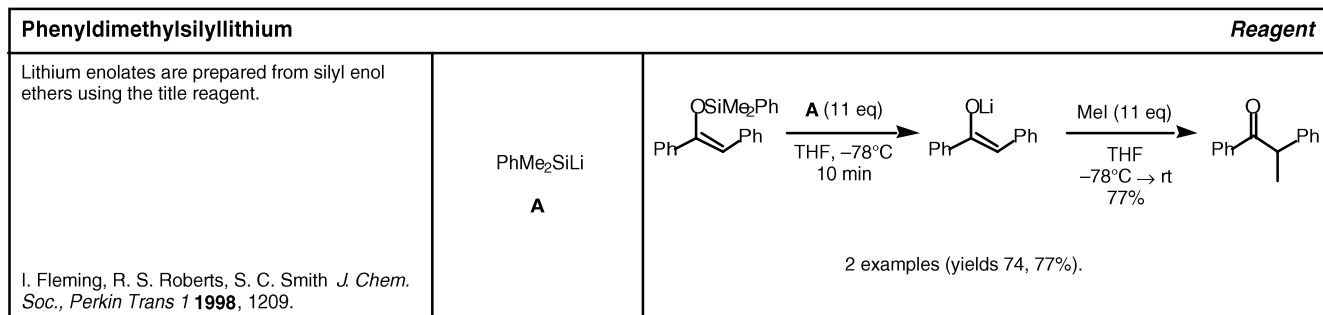
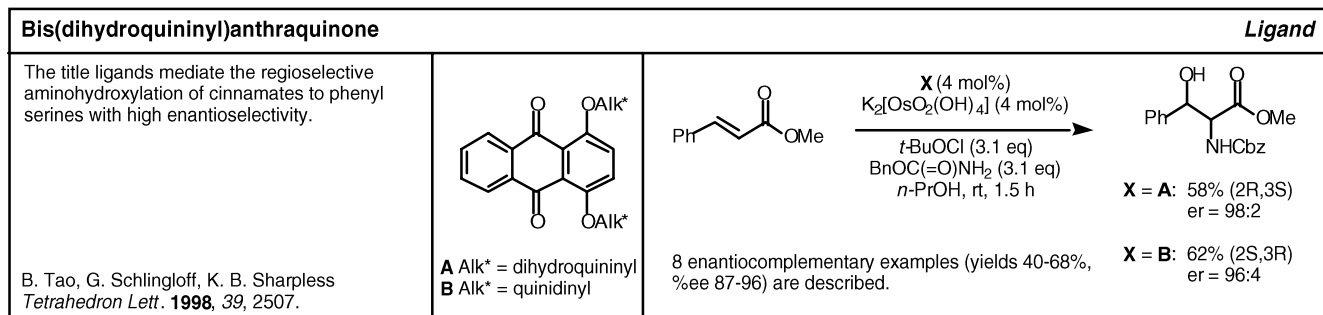
*Synthesis Alerts* is a personal selection by Paul Blakemore, Stephen Brand, John Christopher, Emma Guthrie, Philip Kocienski, Louise Lea, Graham McAllister, Russell McDonald and Robert Narquizian of Glasgow University. The journals regularly covered by the abstractors are: *Angewandte Chemie International Edition*, *Bulletin of the Chemical Society of Japan*, *Chemistry A European Journal*, *Chemistry Letters*, *European Journal of Organic Chemistry*, *Helvetica Chimica Acta*, *Heterocycles*, *Journal of Organic Chemistry*, *Journal of the American Chemical Society*, *Organometallics*, *Synlett*, *Synthesis*, *Tetrahedron*, *Tetrahedron Asymmetry* and *Tetrahedron Letters*.

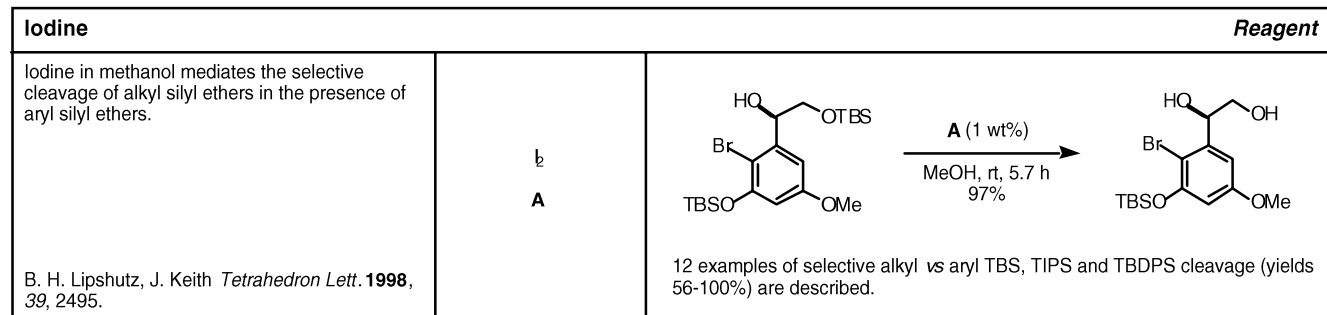
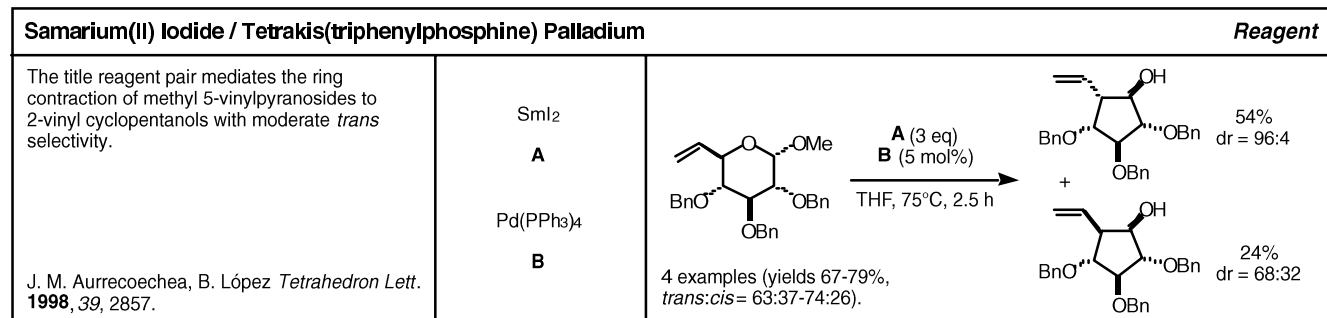
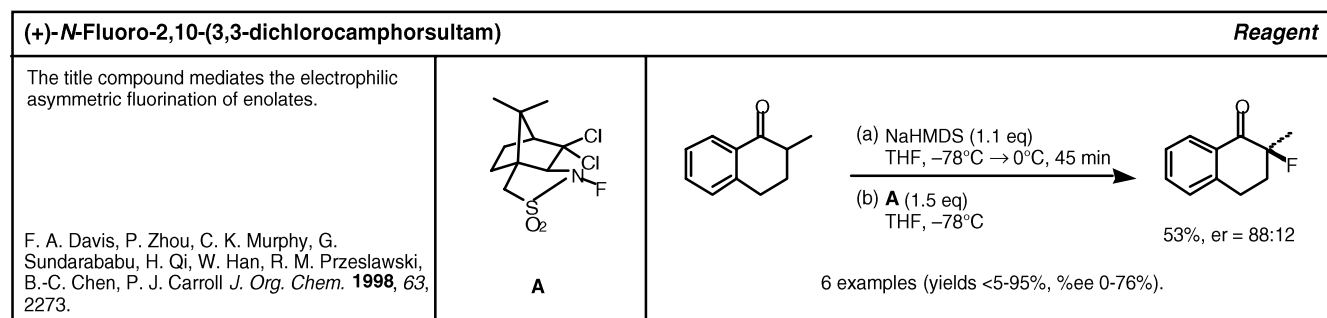
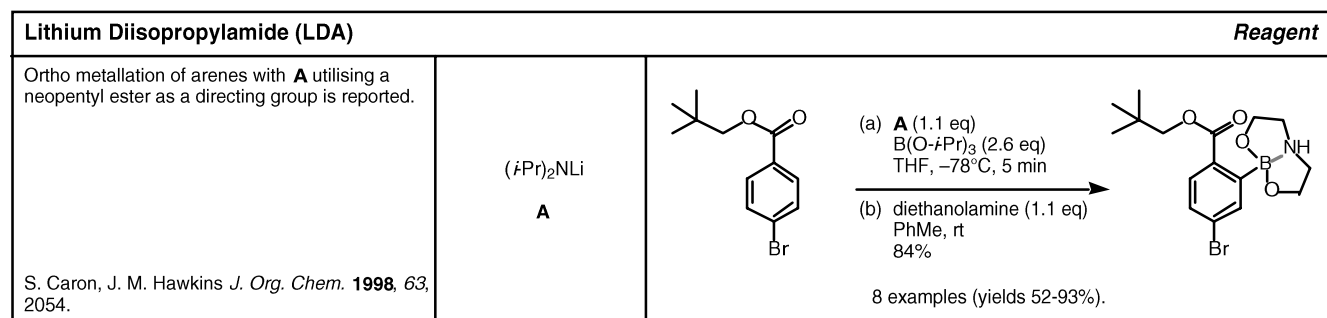
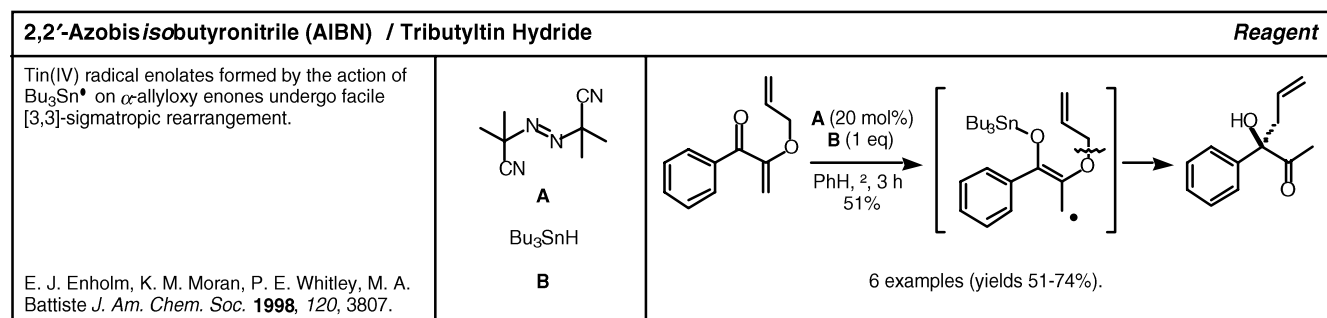
Georg Thieme Verlag does not accept responsibility for the accuracy, content, or selection of the data.

Scandium(III) Trifluoromethanesulfonate		Catalyst
<p><b>A</b> catalyses the Friedel-Crafts alkylation of a range of aromatic compounds with methanesulfonates derived from secondary alcohols.</p> <p>H. Kotsuki, T. Oshisi, M. Inoue <i>Synlett</i> <b>1998</b>, 255.</p>	 <p><b>A</b></p>	 <p>11 examples (yields 36-98%). The catalyst can be reused without a significant loss of activity.</p>
Chiral (Salen) Mn(III) Complex / Ammonium Acetate		Catalyst
<p>The title reagent pair catalyse the asymmetric epoxidation of various unfunctionalised olefins by hydrogen peroxide.</p> <p>P. Pietikäinen <i>Tetrahedron</i> <b>1998</b>, 54, 4319.</p>	 <p>R = t-Bu <b>A</b></p> <p>NH<sub>4</sub>OAc <b>B</b></p>	 <p>3 examples given (yields 71-90%, %ee 84-96%).</p>
Microencapsulated Scandium(III) Trifluoromethanesulfonate		Catalyst
<p>Polystyrene microcapsules (MC) of scandium(III) triflate were found to catalyse a wide variety of reactions (eg. imino aldol, aldol, Mannich, Michael, Friedel-Crafts acylation). The microencapsulated form of the Lewis acid was found to be more active than monomeric material and could be recovered <i>via</i> simple filtration.</p> <p>S. Kobayashi, S. Nagayama <i>J. Am. Chem. Soc.</i> <b>1998</b>, 120, 2985.</p>	 <p>MC Sc(OTf)<sub>3</sub> <b>A</b></p>	 <p>1st use of <b>A</b>, 92% 2nd use of <b>A</b>, 97% 3rd use of <b>A</b>, 95%</p> <p>Various reactions are illustrated (yields &gt;76%). In each case no decrease in activity was noted when the catalyst was re-used in subsequent transformations. The simple preparation of the catalyst is described.</p>









Manganese / Copper(II) Chloride		Reagent
The title reagent pair mediates the homo- and cross-coupling of alkyl halides in aqueous media.	Mn A CuCl <sub>2</sub> B	<p>8 examples of homo-coupling (yields 52-100%) and 2 examples of cross-coupling with an allyl bromide (yields 62, 79%) are described.</p>
J. Ma, T.-K. Chan <i>Tetrahedron Lett.</i> <b>1998</b> , 39, 2499.		

Tributyltin Hydride		Reagent
The title reagent mediates the reductive decomplexation of acetylene biscobalthexacarbonyl complexes to form the corresponding <i>cis</i> alkenes.	<i>n</i> -Bu <sub>3</sub> SnH A	<p>8 examples (yields 35-82%) are described. A similar decomplexation using triethylsilane gives <i>cis</i>-vinylsilanes.</p>
S. Hosokawa, M. Isobe <i>Tetrahedron Lett.</i> <b>1998</b> , 39, 2609.		

Carbomethoxypropionyl Cyanide		Reagent
The title reagent reacts regioselectively with ketone enolates to form 1,3-dicarbonyl compounds.	 A	<p>6 examples (yields 73-95%) of C-acylation under kinetic and thermodynamic conditions are described.</p>
Q. Tang, S. E. Sen <i>Tetrahedron Lett.</i> <b>1998</b> , 39, 2249.		

1,1,2,2-Tetraphenyldisilane		Reagent
The title reagent participates in the reduction of alkyl bromides, addition to alkenes and alkylation of heterocyclic bases.	Ph <sub>2</sub> Hsi-SiHPh <sub>2</sub> A	<p>26 examples are described.</p>
O. Yamazaki, H. Togo, S. Matsubayashi, M. Yokoyama <i>Tetrahedron Lett.</i> <b>1998</b> , 39, 1921.		

Dichloroindium Hydride		Reagent
Dichloroindium hydride mediates the reduction of aldehydes, ketones and alkyl halides.	 A	<p>16 examples (yields 23-99%) are described. Nitro, cyano and ester groups are unreactive.</p>
T. Miyai, K. Inoue, M. Yasuda, I. Shibata, A. Baba <i>Tetrahedron Lett.</i> <b>1998</b> , 39, 1929.		