

AIMS AND SCOPE

While total synthesis reached extraordinary levels of sophistication in the last century, the development of practical and efficient synthetic methodologies is still in its infancy. The goal of achieving chemical reactions that are economical, safe, environmentally benign, resource- and energy-saving will demand the highest level of scientific creativity, insight and understanding in a combined effort by academic and industrial chemists.

Advanced Synthesis & Catalysis is designed to stimulate and advance that process by focusing on the development and application of efficient synthetic methodologies and strategies in organic, bioorganic, pharmaceutical, natural product, macromolecular and materials chemistry. The targets of synthetic studies can range from natural products and pharmaceuticals to macromolecules and organic materials. While catalytic methods based on metal complexes or enzymes play an ever increasing role in achieving synthetic efficiency, all areas of interest to the practical synthetic chemist fall within the purview of *Advanced Synthesis & Catalysis*, including synthesis design, reaction techniques, separation science and process development.

Contributions from industrial and governmental laboratories are highly encouraged. It is the goal of the journal to help initiate a new era of chemical science, based on the efforts of synthetic chemists and on interdisciplinary collaboration, so that chemistry will make an even greater contribution to the quality of life than it does now.

Advanced Synthesis & Catalysis

succeeding *Journal für praktische Chemie*
(founded in 1828)

New! Online Submission
now available at
<http://asc.wiley-vch.de>

2004, 346, 5, Pages 487–584

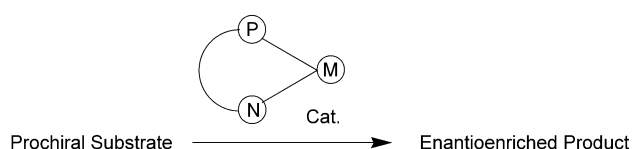
Issue 4/2004 was published online on April 13, 2004

REVIEW

The Development of Bidentate P,N Ligands for Asymmetric Catalysis

Adv. Synth. Catal. **2004**, 346, 497–537

Patrick J. Guiry,* Cormac P. Saunders



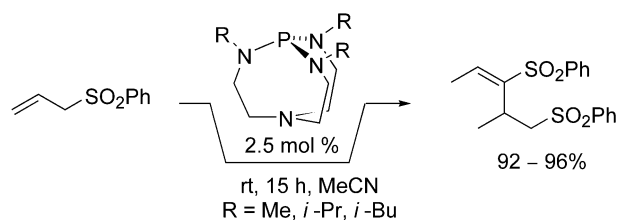
497

COMMUNICATIONS

Catalytic Dimerization of Allyl Phenyl Sulfone in the Presence of a Proazaphosphatrane Catalyst

Adv. Synth. Catal. **2004**, 346, 539–541

Zhengkun Yu, John G. Verkade*

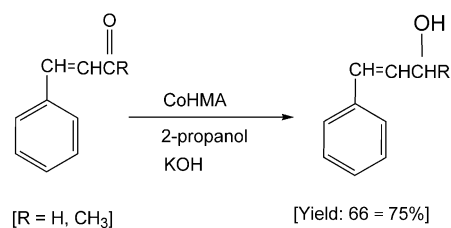


539

- 542** Chemoselective Reduction of α,β -Unsaturated Carbonyls over Novel Mesoporous CoHMA Molecular Sieves under Hydrogen Transfer Conditions

Adv. Synth. Catal. **2004**, 346, 542–544

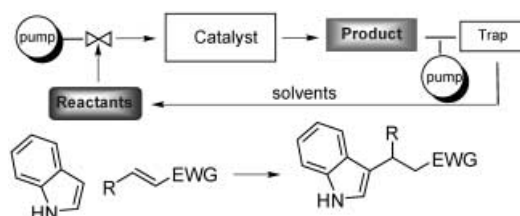
P. Selvam,* S. U. Sonavane, S. K. Mohapatra, R. V. Jayaram



- 545** Solid Acid-Catalysed Michael-Type Conjugate Addition of Indoles to Electron-Poor C=C Bonds: Towards High Atom Economical Semicontinuous Processes

Adv. Synth. Catal. **2004**, 346, 545–548

Marco Bandini,* Matteo Fagioli, Achille Umani-Ronchi*

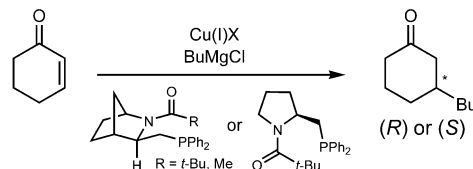


FULL PAPERS

- 549** Bicyclic O,P Ligands for Catalytic Asymmetric 1,4-Addition to α,β -Unsaturated Ketones

Adv. Synth. Catal. **2004**, 346, 549–553

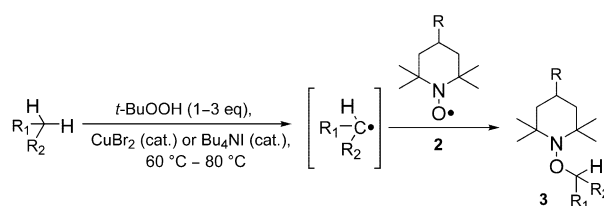
Stefan A. Modin, Pedro Pinho, Pher G. Andersson*



- 554** Synthesis of *N*-Alkoxy Amines *via* Catalytic Oxidation of Hydrocarbons

Adv. Synth. Catal. **2004**, 346, 554–560

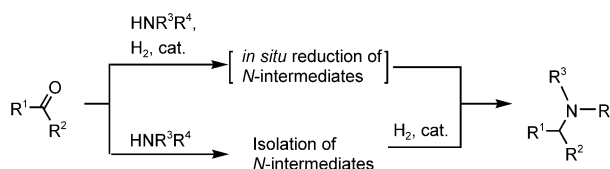
Hans-J. Kirner, Franz Schwarzenbach, Paul A. van der Schaaf, Andreas Hafner, Valérie Rast, Markus Frey,* Peter Nesvadba, Guenther Rist



- 561** Direct Reductive Amination *versus* Hydrogenation of Intermediates – A Comparison

Adv. Synth. Catal. **2004**, 346, 561–565

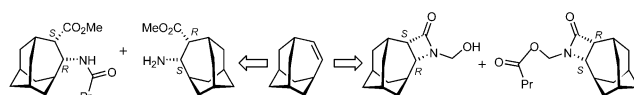
Vitali I. Tararov,* Renat Kadyrov, Thomas H. Riermeier, Christine Fischer, Armin Börner*



Chemoenzymatic Preparation of Enantiopure Homoadamantyl β -Amino Acid and β -Lactam Derivatives

Adv. Synth. Catal. **2004**, 346, 566–572

Zsuzsanna Cs. Gyarmati, Arto Liljeblad, Gyula Argay,
Alajos Kálmán, Gábor Bernáth, Liisa T. Kanerva*

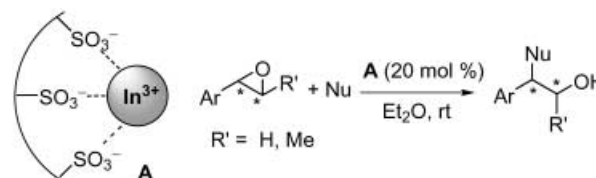


566

Polymer-Supported Indium Lewis Acid: Highly Versatile Catalyst for Regio- and Stereoselective Ring-Opening of Epoxides

Adv. Synth. Catal. **2004**, 346, 573–578

Marco Bandini,* Matteo Fagioli, Alfonso Melloni, Achille Umani-Ronchi*



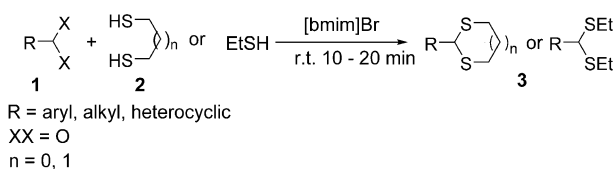
573

UPDATE

Investigations Towards the Chemoselective Thioacetalization of Carbonyl Compounds by Using Ionic Liquid [bmim]Br as a Recyclable Catalytic Medium

Adv. Synth. Catal. **2004**, 346, 579–582

Ahmed Kamal,* Gagan Chouhan



579

BOOK REVIEWS

Protecting Groups
by P. J. Kociński

Adv. Synth. Catal. **2004**, 346, 583
Martin E. Maier

583

Modern Arene Chemistry:
Concepts, Synthesis and Applications
edited by Didier Astruc

Adv. Synth. Catal. **2004**, 346, 584
Guy Bertrand

584



Supporting information on the WWW (see article for access details).

*Author to whom correspondence should be addressed.