

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.

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2005, 347, 5, Pages 599–724

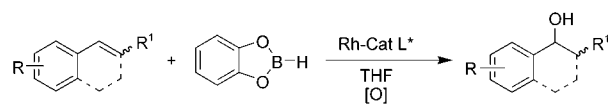
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REVIEWS

The Development of Enantioselective Rhodium-Catalysed Hydroboration of Olefins

Adv. Synth. Catal. **2005**, 347, 609–631

Anne-Marie Carroll, Timothy P. O'Sullivan, Patrick J. Guiry*



L* = P,P or P,N Ligands

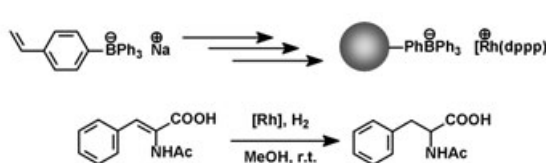
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COMMUNICATIONS

Disperse Amphiphilic Submicron Particles as Non-Covalent Supports for Cationic Homogeneous Catalysts

Adv. Synth. Catal. **2005**, 347, 633–636

Rafaël Sablong, Jarl Ivar van der Vlugt, Ralf Thomann, Stefan Mecking,* Dieter Vogt*



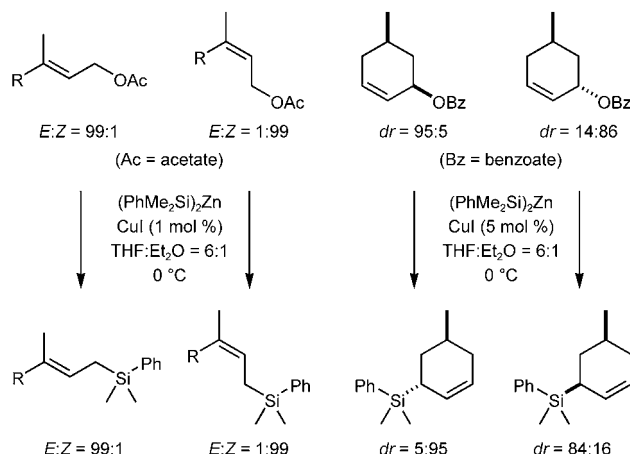
Successful recycling of a cationic Rh catalyst by a polymeric borate counter anion

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- 637** Practical Synthesis of Allylic Silanes from Allylic Esters and Carbamates by Stereoselective Copper-Catalyzed Allylic Substitution Reactions

Adv. Synth. Catal. **2005**, 347, 637–640

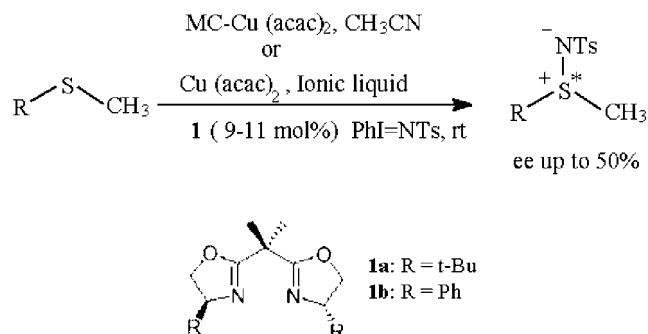
Martin Oestreich,* Gertrud Auer



- 641** Heterogeneous Catalytic Sulfimination using Immobilized Cu(acac)₂

Adv. Synth. Catal. **2005**, 347, 641–646

M. Lakshmi Kantam,* B. Kavita, V. Neeraja, Y. Haritha, M. K. Chaudhuri,* S. K. Dehury



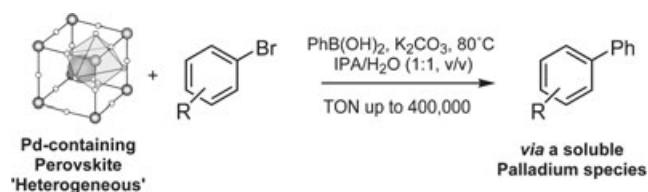
FULL PAPERS

- 647** Heterogeneous or Homogeneous? A Case Study Involving Palladium-Containing Perovskites in the Suzuki Reaction

Adv. Synth. Catal. **2005**, 347, 647–654



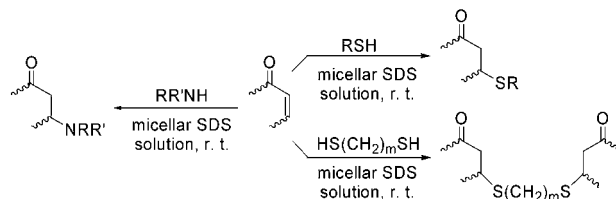
Stephen P. Andrews, Antonia F. Stepan, Hirohisa Tanaka, Steven V. Ley, Martin D. Smith*



- 655** Micellar Solution of Sodium Dodecyl Sulfate (SDS) Catalyzes Facile Michael Addition of Amines and Thiols to α,β -Unsaturated Ketones in Water under Neutral Conditions

Adv. Synth. Catal. **2005**, 347, 655–661

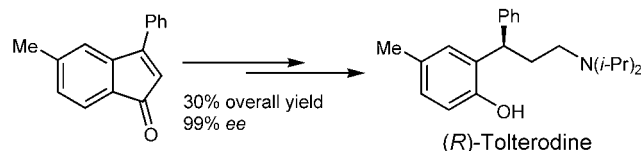
H. Firouzabadi,* N. Iranpoor,* A. A. Jafari



- 662** Catalytic Asymmetric Total Synthesis of the Muscarinic Receptor Antagonist (*R*)-Tolterodine

Adv. Synth. Catal. **2005**, 347, 662–666

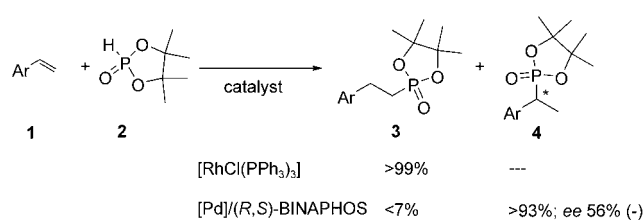
Christian Hedberg, Pher G. Andersson*



Regio- and Enantioselective Catalytic Hydrophosphorylation of Vinylarenes

Adv. Synth. Catal. **2005**, 347, 667–672

Mstislav O. Shulyupin, Giancarlo Franciò,
Irina P. Beletskaya,* Walter Leitner*

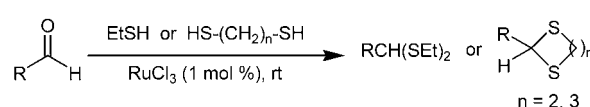


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Ruthenium(III) Chloride-Catalyzed Thioacetalization of Carbonyl Compounds: Scope, Selectivity, and Limitations

Adv. Synth. Catal. **2005**, 347, 673–676

Surya Kanta De

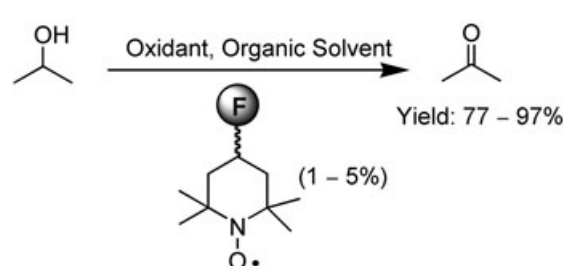


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Selective Oxidation of Alcohols to Carbonyl Compounds Mediated by Fluorous-Tagged TEMPO Radicals

Adv. Synth. Catal. **2005**, 347, 677–688

Orsolya Holczknecht, Marco Cavazzini, Silvio Quici,
Ian Shepperson, Gianluca Pozzi*



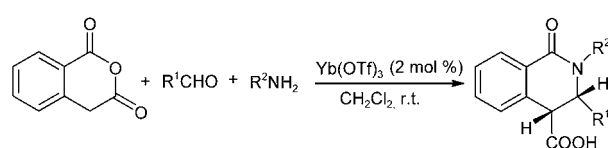
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One-Pot Synthesis of *cis*-Isoquinolonic Acid Derivatives via Three-Component Reaction of Homophthalic Anhydride with Aldehydes and Amines using Ytterbium(III) Triflate as Catalyst

Adv. Synth. Catal. **2005**, 347, 689–694



Limin Wang,* Jijun Liu, He Tian, Changtao Qian, Jie Sun



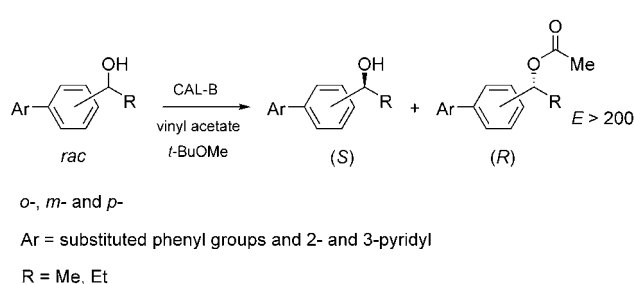
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Kinetic Resolution of 1-Biaryl- and 1-(Pyridylphenyl)alkan-1-ols Catalysed by the Lipase B from *Candida antarctica*

Adv. Synth. Catal. **2005**, 347, 695–702



Robert Kourist, Javier González-Sabín, Ramón Liz,
Francisca Rebolledo*

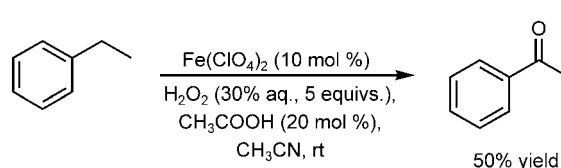


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Iron-Catalyzed Oxidation of Cycloalkanes and Alkylarenes with Hydrogen Peroxide

Adv. Synth. Catal. **2005**, 347, 703–705

Chiara Pavan, Julien Legros, Carsten Bolm*



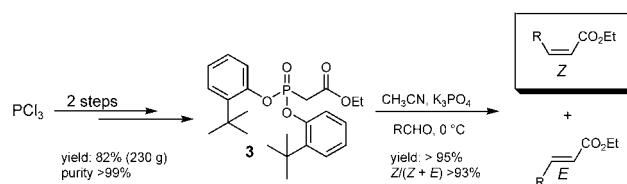
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UPDATES

- 707** Efficient and Scalable Protocol for the *Z*-Selective Synthesis of Unsaturated Esters by Horner–Wadsworth–Emmons Olefination

Adv. Synth. Catal. **2005**, 347, 707–711

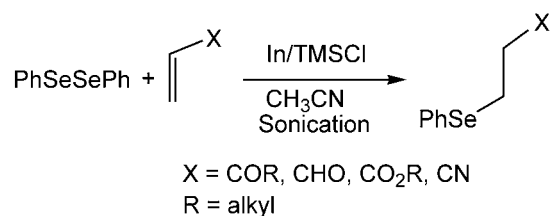
François P. Touchard,* Nicolas Capelle, Mathilde Mercier



- 712** A Convenient Synthesis of β -Phenylselenocarbonyl Compounds by In-TMSCl Promoted Cleavage of Diphenyl Diselenide and Subsequent Michael Addition

Adv. Synth. Catal. **2005**, 347, 712–714

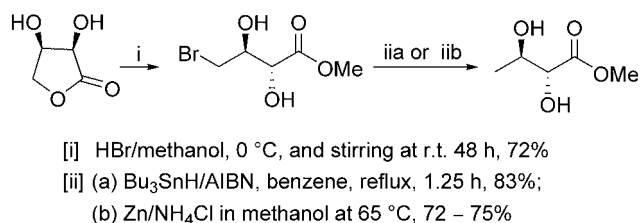
Brindaban C. Ranu,* Arijit Das



- 715** Simple and Highly Convenient Two-Step Practical Procedure for the Synthesis of Optically Pure Methyl *D*-erythro-2,3-Dihydroxybutanoate

Adv. Synth. Catal. **2005**, 347, 715–717

S. M. Mahalingam, N. Sathyamurthi, I. S. Aidhen*



BOOK REVIEW

- 719** Organolithiums in Enantioselective Synthesis
Edited by D. M. Hodgson

Adv. Synth. Catal. **2005**, 347, 719–720
Marek Majewski

CORRIGENDUM

In the communication by Phil Ho Lee,* Dong Seomoon, Kooyeon Lee, Sundae Kim, Hyunseok Kim, Hyun Kim, Eunkyong Shim, Miae Lee, Seokju Lee, Misook Kim, Madabhushi Sridhar in Issue 13–15, 2004, pp. 1641–1645, the Korea Research Foundation Grant number given in the Acknowledgements in page 1644 should read *KRF-2001-005-D20012* and not *KRF-2001-005-D00048*. The authors apologize for this error.



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