

## AIMS AND SCOPE

Although total synthesis reached extraordinary levels of sophistication in the last century, the development of practical and efficient synthetic methodologies is still in its infancy. Achieving chemical reactions that are highly selective, economical, safe, resource- and energy-efficient, and environmentally benign is a primary challenge to chemistry in this century. Realizing this goal will demand the highest level of scientific creativity, insight and understanding in a combined effort by academic, government and industrial chemists and engineers.

*Advanced Synthesis & Catalysis* promotes that process by publishing high-impact research results reporting the development and application of efficient synthetic methodologies and strategies for organic targets that range from pharmaceuticals to organic materials. Homogeneous catalysis, biocatalysis, organocatalysis and heterogeneous catalysis directed towards organic synthesis are playing an ever increasing role in achieving synthetic efficiency. Asymmetric catalysis remains a topic of central importance. In addition, *Advanced Synthesis & Catalysis* includes other areas that are making a contribution to green synthesis, such as synthesis design, reaction techniques, flow chemistry and continuous processing, multi-phase catalysis, green solvents, catalyst immobilization and recycling, separation science and process development.

Practical processes involve development of effective integrated strategies, from an elegant synthetic route based on mechanistic and structural insights at the molecular level through to process optimization at larger scales. These endeavors often entail a multidisciplinary approach that spans the broad fields chemistry, biology, and engineering and involve contributions from academic, government, and industrial laboratories.

The unique focus of *Advanced Synthesis & Catalysis* has rapidly made it a leading organic chemistry and catalysis journal. The goal of *Advanced Synthesis & Catalysis* is to help inspire 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  
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2008, 350, 4, Pages 521–636

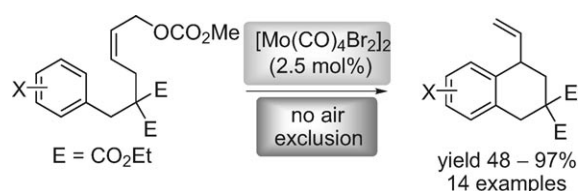
Issue 3/2008 was published online on  
February 19, 2008

## COMMUNICATIONS

### Highly Efficient Molybdenum(II)-Catalyzed Intramolecular Allylic Alkylation of Arenes

*Adv. Synth. Catal.* **2008**, 350, 531–536


 Marco Bandini,\* Astrid Eichholzer, Peter Kotrusz,  
Achille Umani-Ronchi\*

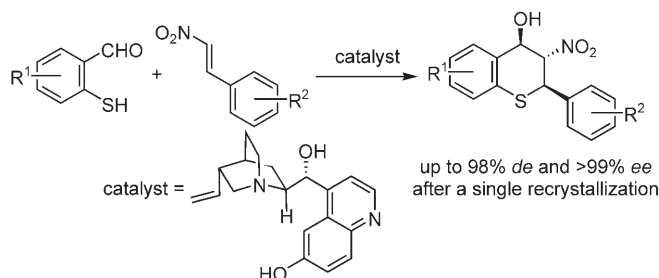


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### Synthesis of 2,3,4-Trisubstituted Thiochromanes using an Organocatalytic Enantioselective Tandem Michael–Henry Reaction

*Adv. Synth. Catal.* **2008**, 350, 537–541

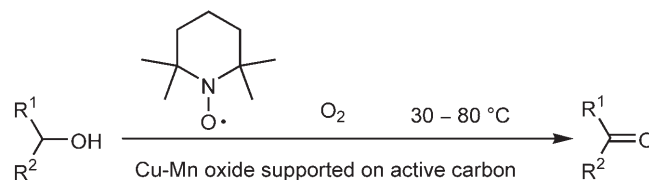
 Rajasekhara Dodda, Joshua J. Goldman, Tanmay Mandal,  
Cong-Gui Zhao,\* Grant A. Broker, Edward R. T. Tiekink



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- 542** Recyclable Carbon Supported Copper-Manganese Oxide for Selective Aerobic Oxidation of Alcohols in Combination with 2,2,6,6-Tetramethylpiperidyl-1-oxyl under Neutral Condition

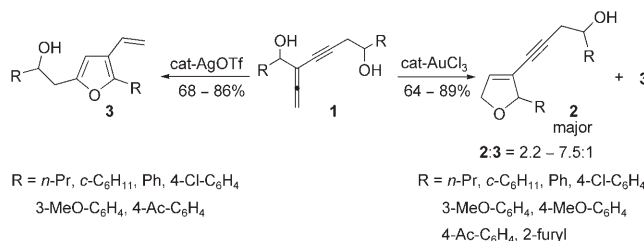
*Adv. Synth. Catal.* **2008**, 350, 542–546



Guanyu Yang,\* Weimin Zhu, Panke Zhang, Huazhen Xue, Wei Wang, Junshan Tian, Maoping Song\*

- 547** Cyclization of Allenyne-1,6-diols Catalyzed by Gold and Silver Salts: An Efficient Selective Synthesis of Dihydrofuran and Furan Derivatives

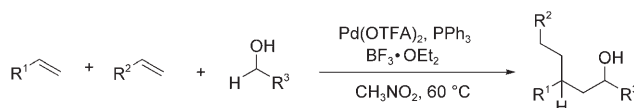
*Adv. Synth. Catal.* **2008**, 350, 547–551



Sundae Kim, Phil Ho Lee\*

- 552** Palladium-Catalyzed/Lewis Acid-Promoted Alkene Dimerization and Cross-Coupling with Alcohols *via* C–H Bond Activation

*Adv. Synth. Catal.* **2008**, 350, 552–556

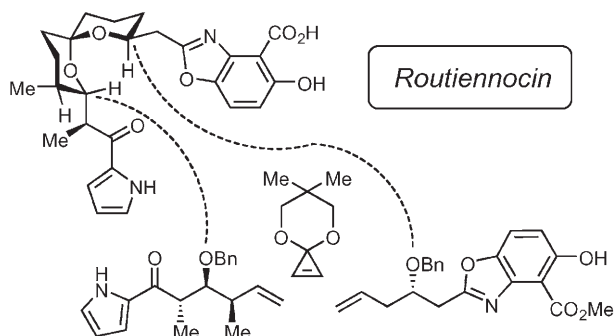


Yi-Jun Jiang, Yong-Qiang Tu,\* En Zhang, Shu-Yu Zhang, Ke Cao, Lei Shi

- 557** Eight-Step Synthesis of Routiennocin

*Adv. Synth. Catal.* **2008**, 350, 557–560

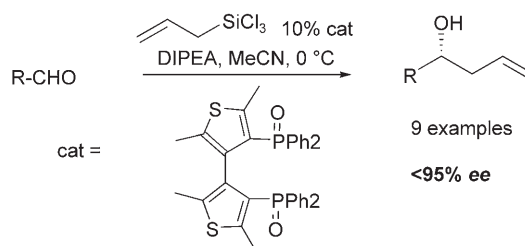
Kenji Matsumoto, Sergey A. Kozmin\*

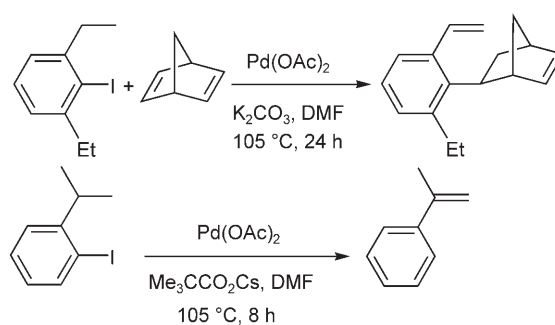


- 561** Novel Chiral Biheteroaromatic Diphosphine Oxides for Lewis Base Activation of Lewis Acids in Enantioselective Allylation and Epoxide Opening

*Adv. Synth. Catal.* **2008**, 350, 561–564

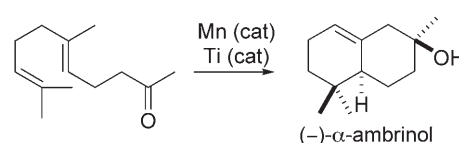
Valentina Simonini, Maurizio Benaglia,\* Tiziana Benincori\*



Catalytic Dehydrogenation of *o*-Alkylated or *o*-Alkoxyated Iodoarenes with Concomitant Hydrogenolysis*Adv. Synth. Catal.* **2008**, 350, 565–569 Elena Motti, Marta Catellani\*


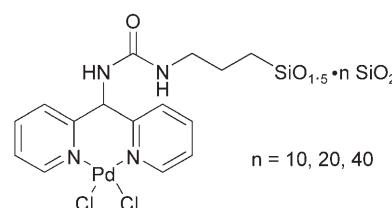
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## FULL PAPERS


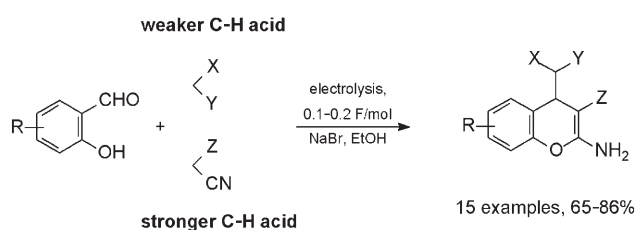
Titanium-Catalyzed Enantioselective Synthesis of  $\alpha$ -Ambrinol*Adv. Synth. Catal.* **2008**, 350, 571–576José Justicia,\* Araceli G. Campaña, Btissam Bazdi,  
Rafael Robles, Juan M. Cuerva,\* J. Enrique Oltra\*

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## Hybrid Organic-Inorganic Materials from Di-(2-pyridyl)methylamine-Palladium Dichloride Complex as Recoverable Catalysts for Suzuki, Heck and Sonogashira Reactions

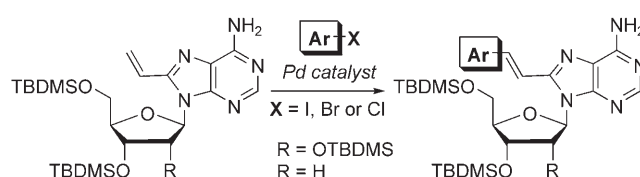
*Adv. Synth. Catal.* **2008**, 350, 577–590 Montserrat Trilla, Roser Pleixats,\* Michel Wong Chi Man,\*  
Catherine Bied, Joël J. E. Moreau

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Catalysis of Salicylaldehydes and Two Different *C*-H Acids with Electricity: First Example of an Efficient Multicomponent Approach to the Design of Functionalized Medicinally Privileged 2-Amino-4*H*-Chromene Scaffold*Adv. Synth. Catal.* **2008**, 350, 591–601 Michail N. Elinson,\* Alexander S. Dorofeev,\*  
Fedor M. Miloserdov, Alexey I. Ilovaisky,  
Sergey K. Feducovich, Pavel A. Belyakov,  
Gennady I. Nikishin

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## Simple Methodology for Heck Arylation at C-8 of Adenine Nucleosides


*Adv. Synth. Catal.* **2008**, 350, 602–608 Pallavi Lagisetty, Li Zhang, Mahesh K. Lakshman\*

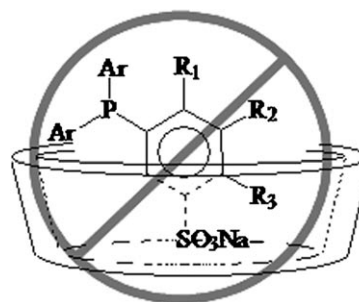
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## UPDATES

- 609** Biphasic Aqueous Organometallic Catalysis Promoted by Cyclodextrins: How to Design the Water-Soluble Phenylphosphane to Avoid Interaction with Cyclodextrin


*Adv. Synth. Catal.* **2008**, 350, 609–618

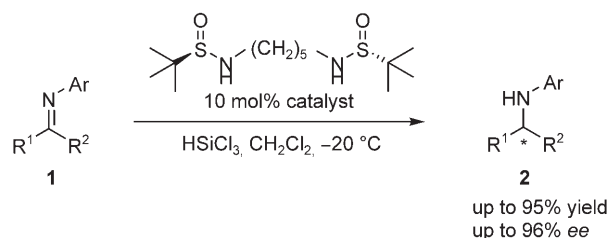
 Michel Ferreira, Hervé Bricout, Adlane Sayede, Anne Ponchel, Sophie Fourmentin, Sébastien Tilloy, Eric Monflier\*



- 619** Rationally-Designed *S*-Chiral Bissulfonamides as Highly Enantioselective Organocatalysts for Reduction of Ketimines

*Adv. Synth. Catal.* **2008**, 350, 619–623

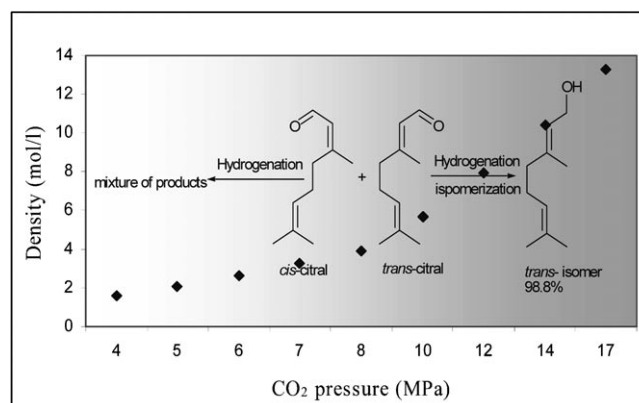
 Dong Pei, Yu Zhang, Siyu Wei, Meng Wang, Jian Sun\*




- 624** Density-Dependent Formation of the Pure *trans*-Isomer of Unsaturated Alcohol by Selective Hydrogenation of Citral in Supercritical Carbon Dioxide

*Adv. Synth. Catal.* **2008**, 350, 624–632

M. Chatterjee,\* Y. Ikushima, T. Yokoyama, M. Sato



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