

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. 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 metal catalysis, biocatalysis and organocatalysis 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*
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2007, 349, 16, Pages 2397–2520

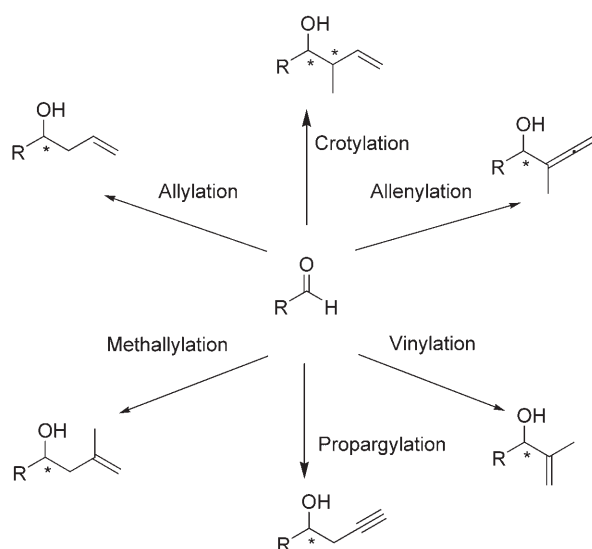
Issue 14 + 15/2007 was published online on October 19, 2007

REVIEW

The Development of the Asymmetric Nozaki–Hiyama–Kishi Reaction

Adv. Synth. Catal. **2007**, 349, 2407–2424

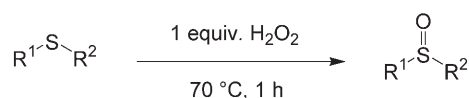
Gráinne C. Hargaden, Patrick J. Guiry*



2407

COMMUNICATIONS

- 2425** Self-Catalyzed Oxidation of Sulfides with Hydrogen Peroxide: A Green and Practical Process for the Synthesis of Sulfoxides

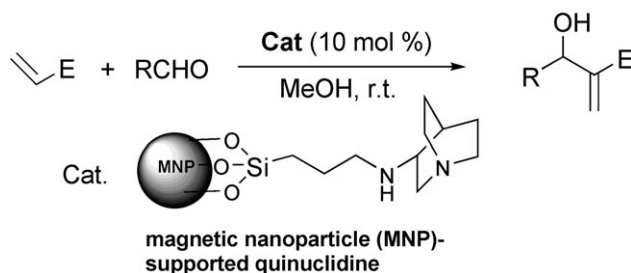


Adv. Synth. Catal. **2007**, *349*, 2425–2430


17 samples, isolated yield: 52 – 98%

Feng Shi, Man Kin Tse, Hanns Martin Kaiser, Matthias Beller*

- 2431** Magnetic Nanoparticle-Supported Morita–Baylis–Hillman Catalysts



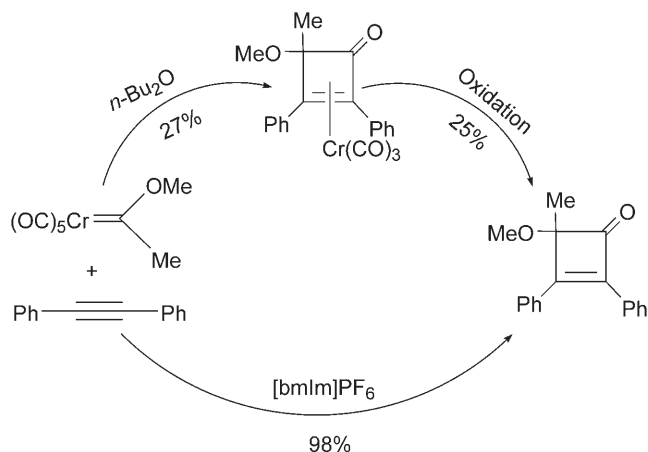
Adv. Synth. Catal. **2007**, *349*, 2431–2434

 Sanzhong Luo,* Xiaoxi Zheng, Hui Xu, Xueling Mi, Long Zhang, Jin-Pei Cheng*

- 2435** Promoting Effect of Imidazolium Ionic Liquid in the Reaction of Chromium Carbene Complexes with Alkynes: A Most Simple and Convenient Way to Get Demetallated-Product!

Adv. Synth. Catal. **2007**, *349*, 2435–2438

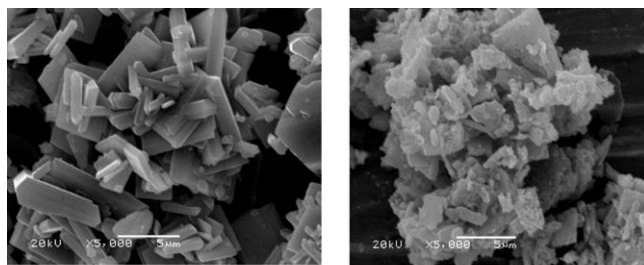
 Amarnath Chakraborty, Tarun K. Maishal*



- 2439** Creation of a Monomeric Ruthenium Species on the Surface of Micro-Size Copper Hydrogen Phosphate: An Active Heterogeneous Catalyst for Selective Aerobic Oxidation of Alcohols

Adv. Synth. Catal. **2007**, *349*, 2439–2444

Junhua Liu, Fang Wang, Kunpeng Sun, Xianlun Xu*

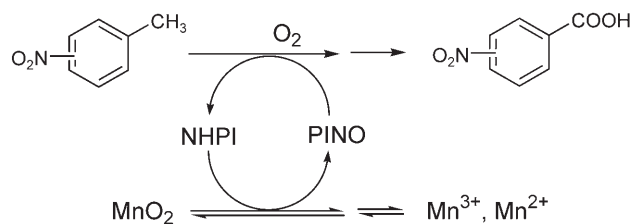


1
SEM images of the (1) CHP (calcined) and (2) RuCHP

- 2445** Manganese Dioxide and *N*-Hydroxyphthalimide. An Effective Catalytic System for Oxidation of Nitrotoluenes with Molecular Oxygen

Adv. Synth. Catal. **2007**, *349*, 2445–2448

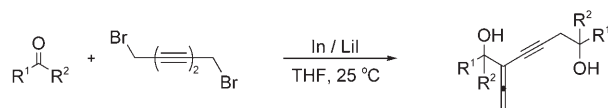
Guanyu Yang,* Liwen Zheng, Guanghui Wu, Xuesong Lin, Maoping Song*



Highly Selective Synthetic Method for 1,6-Diols Bearing Enyne Functions: Development of 3,6-Dianion Reagent of 1,2-Hexadien-4-yne Using 1,6-Dibromo-2,4-hexadiyne and Indium

Adv. Synth. Catal. **2007**, 349, 2449–2453

Sundae Kim, Kooyeon Lee, Dong Seomoon, Phil Ho Lee*



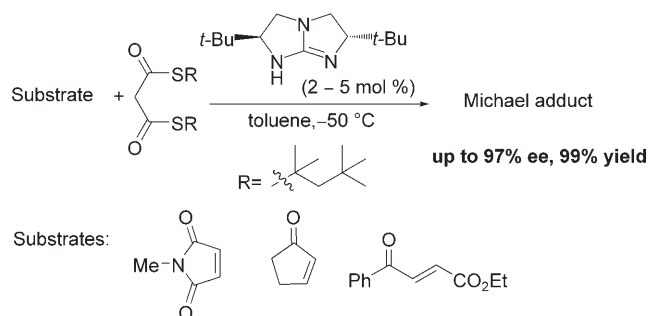
$R^1 = \text{Me}, n\text{-Pr}, c\text{-C}_6\text{H}_{11}, \text{Ph}, \text{trans-PhCH=CH}, 4\text{-Cl-C}_6\text{H}_4, 2\text{-I-C}_6\text{H}_4, 2\text{-MeO-C}_6\text{H}_4, 3\text{-MeO-C}_6\text{H}_4, 4\text{-MeOC}_6\text{H}_4, 4\text{-Me-C}_6\text{H}_4, 2,4,6\text{-Me}_3\text{-C}_6\text{H}_2, 4\text{-O}_2\text{N-C}_6\text{H}_4, 3\text{-HO-C}_6\text{H}_4, 4\text{-Ac-C}_6\text{H}_4, 4\text{-MeO}_2\text{C-C}_6\text{H}_4, 4\text{-AcO-C}_6\text{H}_4, 2\text{-furyl}, \text{PhCH}_2\text{CH}_2$
 $R^2 = \text{H}, \text{Me}$

2449

Chiral Bicyclic Guanidine as a Versatile Brønsted Base Catalyst for the Enantioselective Michael Reactions of Dithiomalonates and β -Keto Thioesters

Adv. Synth. Catal. **2007**, 349, 2454–2458

Weiping Ye, Zhiyong Jiang, Yujun Zhao, Serena Li Min Goh, Dasheng Leow, Ying-Teck Soh, Choon-Hong Tan*



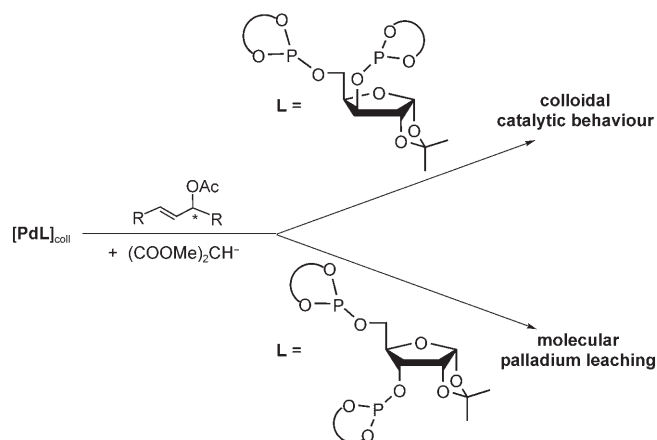
2454

FULL PAPERS

Palladium Catalytic Species Containing Chiral Phosphites: Towards a Discrimination between Molecular and Colloidal Catalysts

Adv. Synth. Catal. **2007**, 349, 2459–2469

Isabelle Favier, Montserrat Gómez,* Guillermo Muller, M. Rosa Axet, Sergio Castellón, Carmen Claver,* Susanna Jansat, Bruno Chaudret,* Karine Philippot*

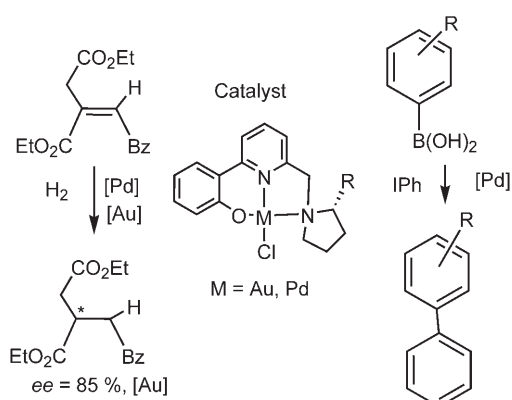


2459

New Pyridine ONN-Pincer Gold and Palladium Complexes: Synthesis, Characterization and Catalysis in Hydrogenation, Hydrosilylation and C–C Cross-Coupling Reactions

Adv. Synth. Catal. **2007**, 349, 2470–2476

N. Debono, M. Iglesias,* F. Sánchez*

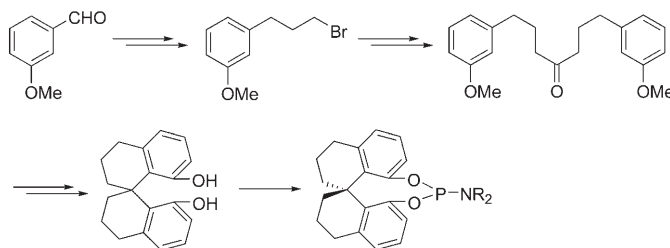


2470

- 2477** The Synthesis of Spirobitetraline Phosphoramidite Ligands and their Application in Rhodium-Catalyzed Asymmetric Hydrogenation

Adv. Synth. Catal. **2007**, 349, 2477–2484

Xiang-Hong Huo, Jian-Hua Xie, Qiu-Shi Wang, Qi-Lin Zhou*



- 2485** Cationic Carboxylato Complexes of Dirhodium(II) with Oxo Thioethers: Catalysts for Silane Alcoholysis under Homogeneous and Liquid-Liquid Biphasic Conditions

Adv. Synth. Catal. **2007**, 349, 2485–2492

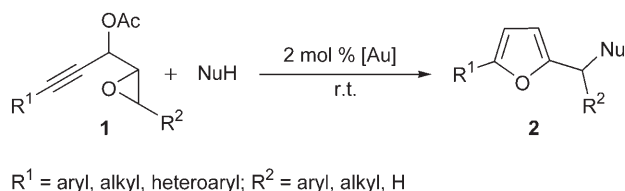
Andrea Biffis,* Marino Basato, Marianna Brichese, Luca Ronconi, Cristina Tubaro, Alessandra Zanella, Claudia Graiff, Antonio Tiripicchio



- 2493** Gold-Catalyzed Tandem Cycloisomerization of Alkynyloxiranes with Nucleophiles: An Efficient Approach to 2,5-Disubstituted Furans

Adv. Synth. Catal. **2007**, 349, 2493–2498

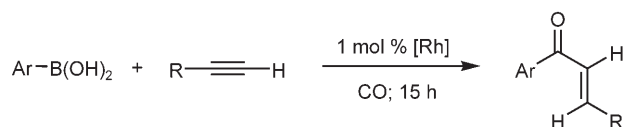
Xing-Zhong Shu, Xue-Yuan Liu, Hui-Quan Xiao, Ke-Gong Ji, Li-Na Guo, Chen-Ze Qi, Yong-Min Liang*



- 2499** Carbonylative Addition of Arylboronic Acids to Terminal Alkynes: A New Catalytic Access to α,β -Unsaturated Ketones

Adv. Synth. Catal. **2007**, 349, 2499–2506

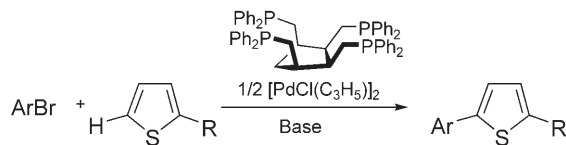
Julien Dheur, Mathieu Sauthier,* Yves Castanet,* André Mortreux



- 2507** Direct Arylation of Thiophenes *via* Palladium-Catalysed C–H Functionalisation at Low Catalyst Loadings

Adv. Synth. Catal. **2007**, 349, 2507–2516

Ahmed Battace, Mhamed Lemhadri, Touriya Zair, Henri Doucet,* Maurice Santelli*



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