

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*
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2004, 346, 7, Pages 697–872

Issue 6/2004 was published online on June 9, 2004

COMMENTARY

Happy Birthday

Adv. Synth. Catal. **2004**, 346, 707

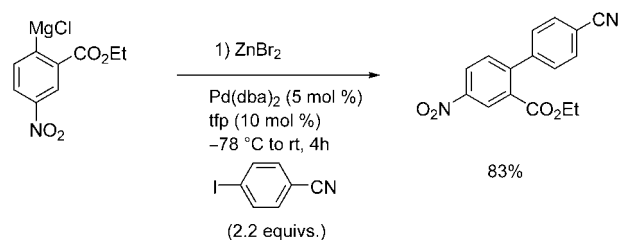
Ryoji Noyori, Steve L. Buchwald, Mark J. Burk,
Eric N. Jacobsen, Shū Kobayashi, Andreas Pfaltz,
Chi-Huey Wong

COMMUNICATIONS

Synthesis of Nitro-Substituted Polyfunctional Biphenyls by
Negishi Cross-Coupling of *o*-Nitroarylzinc Reagents

Adv. Synth. Catal. **2004**, 346, 709–712

Ioannis Sapountzis, Henry Dube, Paul Knochel*



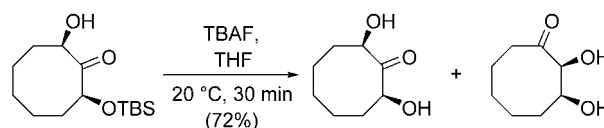
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Fluoride Ion-Promoted α -Ketol Rearrangement during Unmasking of Silyl-Protected Medium-Ring Dihydroxy Ketones

Adv. Synth. Catal. **2004**, 346, 713–716

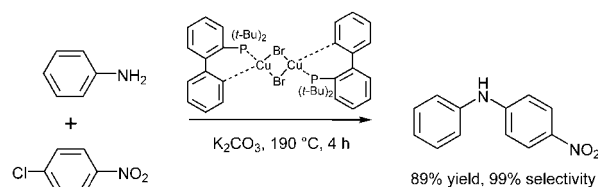
Ryan E. Hartung, David G. Hilmey, Leo A. Paquette*



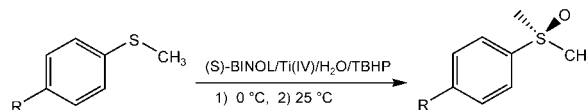
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717 Highly Selective Copper-Catalyzed Monoarylation of Aniline*Adv. Synth. Catal.* **2004**, 346, 717–722

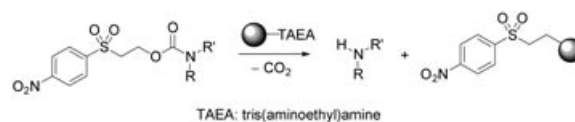
Joachim Haider, Klaus Kunz, Ulrich Scholz*

**723** Titanium-Catalyzed Tandem Sulfoxidation-Kinetic Resolution Process: A Convenient Method for Higher Enantioselectivities and Yields of Chiral Sulfoxide*Adv. Synth. Catal.* **2004**, 346, 723–726

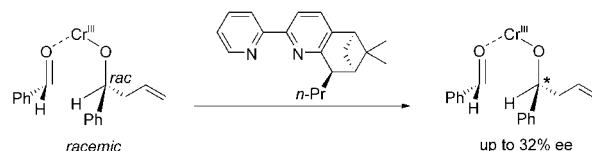
Xian Jia, Xingshu Li, Lijin Xu, Yueming Li, Qian Shi, Terry T.-L. Au-Yeung, C. W. Yip,* Xinsheng Yao, Albert S. C. Chan*

**727** Utilization of 2-(4-Nitrophenylsulfonyl)ethoxycarbonyl (Nsc) as a Substitute for 9H-Fluoren-9-ylmethoxycarbonyl (Fmoc) in Liquid Phase Chemistry*Adv. Synth. Catal.* **2004**, 346, 727–730

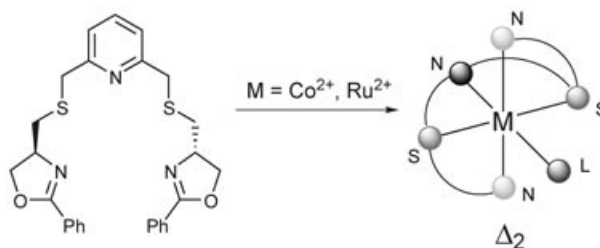
Thomas C. Maier, Joachim Podlech*

**731** Involvement of an Oxidation-Reduction Equilibrium in Chromium-Mediated Enantioselective Nozaki–Hiyama Reactions*Adv. Synth. Catal.* **2004**, 346, 731–736

Henri S. Schrekker, Károly Micskei, Csongor Hajdu, Tamás Patonay, Martin W. G. de Bolster, Ludger A. Wessjohann*

**737** Predetermined Helical Chirality in Octahedral Complexes with a Novel Pentadentate C₂-Symmetrical Chiral Bis(oxazoline) Ligand*Adv. Synth. Catal.* **2004**, 346, 737–741

Michael Seitz, Anja Kaiser, Douglas R. Powell, Andrew S. Borovik, Oliver Reiser*

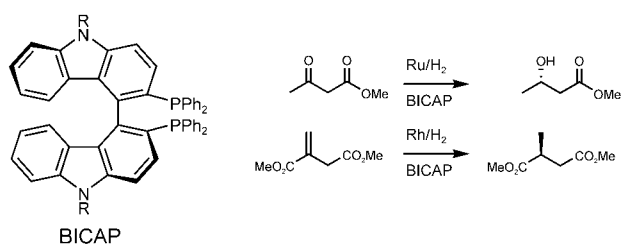


FULL PAPERS

Synthesis, Properties and Applications of BICAP: a New Family of Carbazole-Based Diphosphine Ligands

Adv. Synth. Catal. **2004**, 346, 743–754

Peter N. M. Botman, Jan Fraanje, Kees Goubitz, René Peschar, Jan W. Verhoeven, Jan H. van Maarseveen, Henk Hiemstra*

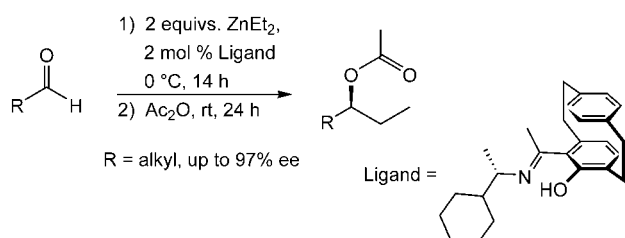


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Second-Generation Paracyclophane Imine Ligands for the Dialkylzinc Addition to Aldehydes. Optimization of the Branched Side Chain leads to Improvement for Aliphatic Aldehydes

Adv. Synth. Catal. **2004**, 346, 755–759

Sebastian Höfener, Frank Lauterwasser, Stefan Bräse*

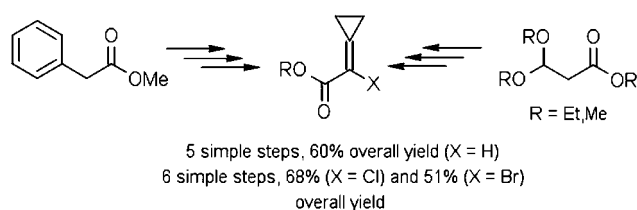


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Cyclopropyl Building Blocks for Organic Synthesis, Part 100. Advanced Syntheses of Cyclopropylideneacetates – Versatile Multifunctional Building Blocks for Organic Synthesis

Adv. Synth. Catal. **2004**, 346, 760–766

Michael Limbach, Suryakanta Dalai, Armin de Meijere*



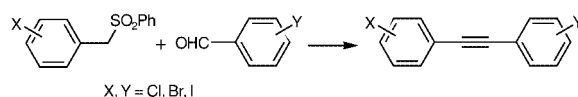
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Double Elimination Protocol for Convenient Synthesis of Dihalodiphenylacetylenes: Versatile Building Blocks for Tailor-Made Phenylene-Ethynyls

Adv. Synth. Catal. **2004**, 346, 767–776



Akihiro Orita, Kazuhiko Miyamoto, Mikio Nakashima, Fangguo Ye, Junzo Otera*

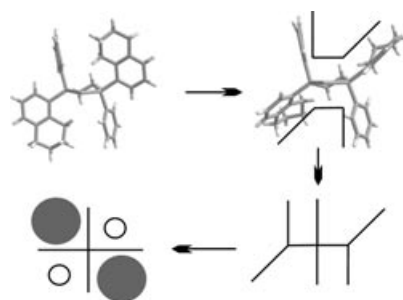


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Optically Pure 1,2-Bis[(o-alkylphenyl)phenylphosphino]ethanes and Their Use in Rhodium-Catalyzed Asymmetric Hydrogenations of α -(Acylamino)acrylic Derivatives

Adv. Synth. Catal. **2004**, 346, 777–788

Yoshiyuki Wada, Tsuneo Imamoto,* Hideyuki Tsuruta, Kentaro Yamaguchi, Ilya D. Gridnev



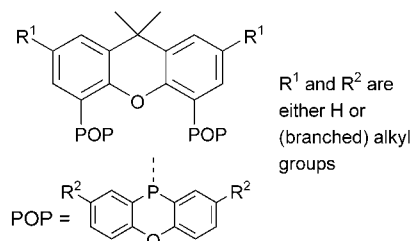
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- 789** Phenoxaphosphino-Modified Xantphos-Type Ligands in the Rhodium-Catalysed Hydroformylation of Internal and Terminal Alkenes

Adv. Synth. Catal. **2004**, 346, 789–799



Raymond P. J. Bronger, Jochem P. Bermon, Jürgen Herwig, Paul C. J. Kamer, Piet W. N. M. van Leeuwen*

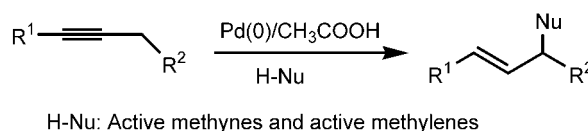


- 800** Allylation of Carbon Pronucleophiles with Alkynes in the Presence of Palladium/Acetic Acid Catalyst

Adv. Synth. Catal. **2004**, 346, 800–804



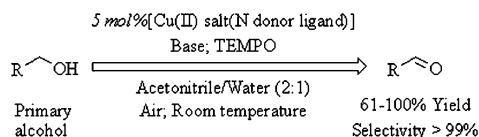
Nitin T. Patil, Isao Kadota, Akinori Shibuya, Young Soo Gyoung, Yoshinori Yamamoto*



- 805** Room Temperature Aerobic Copper–Catalysed Selective Oxidation of Primary Alcohols to Aldehydes

Adv. Synth. Catal. **2004**, 346, 805–811

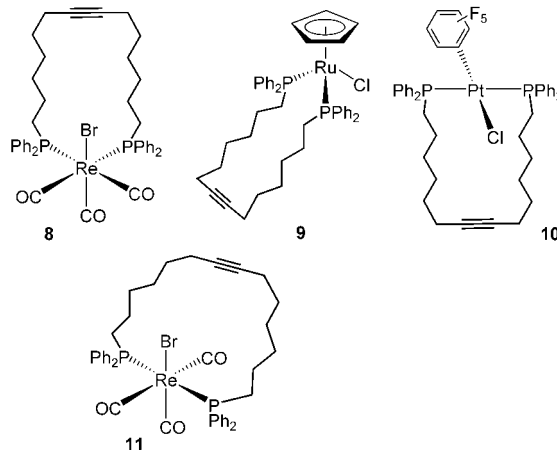
Patrick Gamez, Isabel W. C. E. Arends, Roger A. Sheldon,* Jan Reedijk



- 812** Alkyne Metatheses in Transition Metal Coordination Spheres: Convenient Tungsten- and Molybdenum-Catalyzed Syntheses of Novel Metallamacrocycles

Adv. Synth. Catal. **2004**, 346, 812–822

Eike B. Bauer, Frank Hampel, J. A. Gladysz*

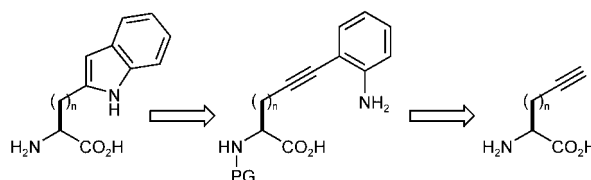


- 823** Transition Metal-Catalyzed Synthesis of Novel Biologically Relevant Tryptophan Analogues

Adv. Synth. Catal. **2004**, 346, 823–834



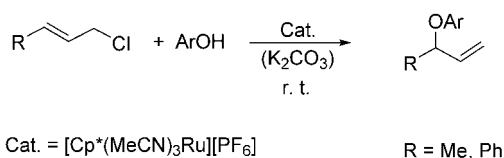
Bart C. J. van Esseveldt, Floris L. van Delft, Jan M. M. Smits, René de Gelder, Hans E. Schoemaker, Floris P. J. T. Rutjes*



Ruthenium-Catalyzed *O*-Allylation of Phenols from Allylic Chlorides *via* Cationic [Cp*(η^3 -allyl)(MeCN)RuX][PF₆] Complexes

Adv. Synth. Catal. **2004**, 346, 835–841

Mbaye D. Mbaye, Bernard Demerseman,* Jean-Luc Renaud, Loïc Toupet, Christian Bruneau*



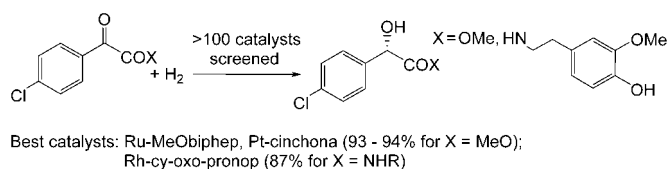
835

Synthesis of Substituted Mandelic Acid Derivatives *via* Enantioselective Hydrogenation: Homogeneous versus Heterogeneous Catalysis

Adv. Synth. Catal. **2004**, 346, 842–848



Fredrik Cederbaum, Clemens Lamberth, Christophe Malan, Fred Naud, Felix Spindler, Martin Studer, Hans-Ulrich Blaser*

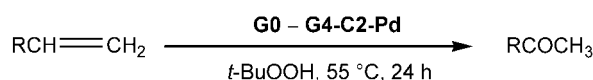


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Dendrimer–Palladium Complex Catalyzed Oxidation of Terminal Alkenes to Methyl Ketones

Adv. Synth. Catal. **2004**, 346, 849–854

Pumza P. Zweni, Howard Alper*

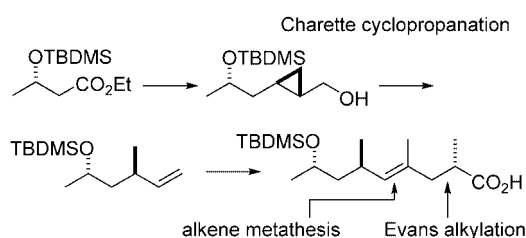


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Synthesis of the 8-Hydroxy Acid of Jasplakinolide

Adv. Synth. Catal. **2004**, 346, 855–861

Saengchai Wattanasereekul, Martin E. Maier*



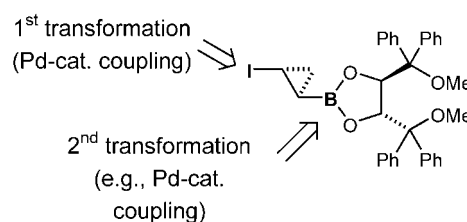
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UPDATES

Enantiomerically Pure Cyclopropane Building Blocks: Synthesis and Transformations of 2-Iodocyclopropylboronic Esters

Adv. Synth. Catal. **2004**, 346, 863–866

Erwin Hohn, Jörg Pietruszka*

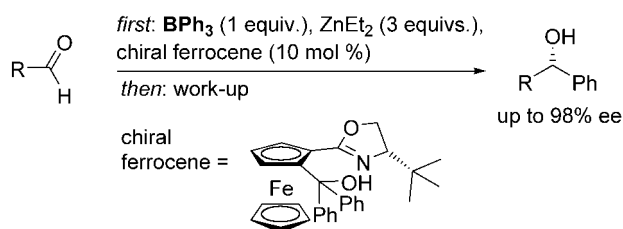


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Highly Enantioselective Synthesis of Secondary Alcohols using Triphenylborane

Adv. Synth. Catal. **2004**, 346, 867–872

Jens Rudolph, Frank Schmidt, Carsten Bolm*



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