

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
Chemie*
(founded in 1828)

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that Stays Sharp!

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COMMENTARY

Professor Armin de Meijere, Practical Elegance in Organic
Chemistry

961

Adv. Synth. Catal. **2009**, 351, 961–962

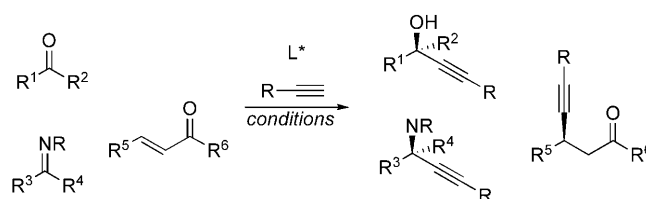
Ryoji Noyori*

REVIEWS

The Enantioselective Addition of Alkyne Nucleophiles to
Carbonyl Groups

Adv. Synth. Catal. **2009**, 351, 963–983

Barry M. Trost,* Andrew H. Weiss

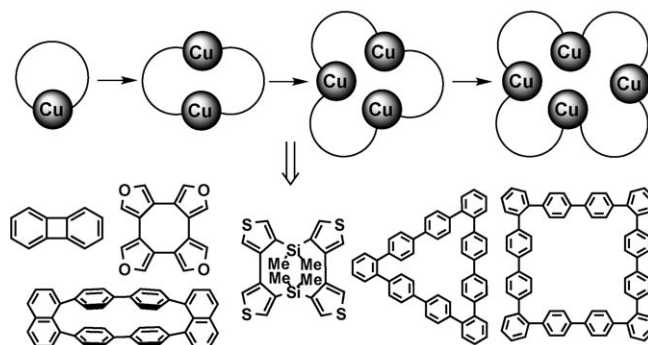


963

984 Copper-Mediated Aryl-Aryl Couplings for the Construction of Oligophenylenes and Related Heteroaromatics

Adv. Synth. Catal. **2009**, 351, 984–998

Masahiko Iyoda*

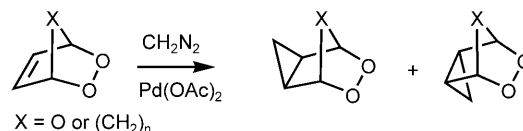


COMMUNICATIONS

999 Palladium-Catalyzed Cyclopropanation of Unsaturated Endoperoxides. A New Peroxide-Preserving Reaction

Adv. Synth. Catal. **2009**, 351, 999–1004

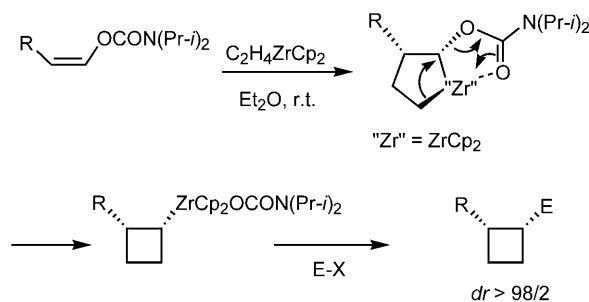
Michael A. Emerzian, William Davenport, Jiangao Song, Jim Li, Ihsan Erden*



1005 Stereoselective Synthesis of Metalated Cyclobutyl Derivatives

Adv. Synth. Catal. **2009**, 351, 1005–1008

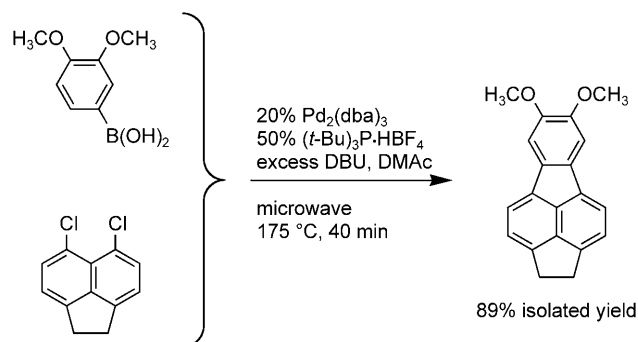
Einav Tsoglin, Helena Chechik, Guy Karseboom, Nicka Chinkov, Amnon Stanger, Ilan Marek*



1009 Expanding the Suzuki–Heck-Type Coupling Cascade: A New Indeno[1,2,3]-Annulation of Polycyclic Aromatic Hydrocarbons

Adv. Synth. Catal. **2009**, 351, 1009–1013

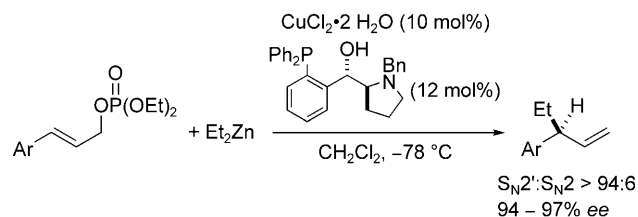
Jennifer M. Quimby, Lawrence T. Scott*



1014 Enantioselective Copper-Catalyzed Allylic Substitution Reaction with Aminohydroxyphosphine Ligand


Adv. Synth. Catal. **2009**, 351, 1014–1018

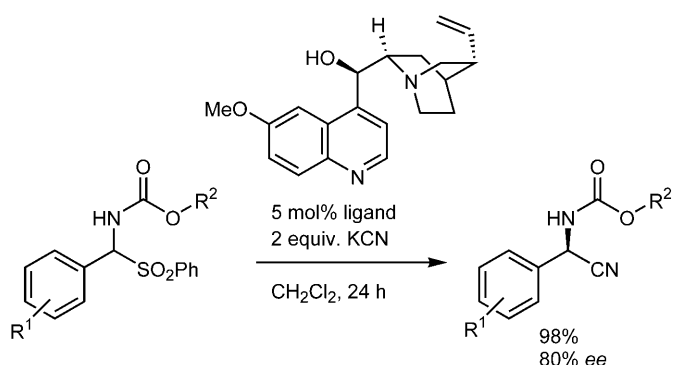
Naohiko Yoshikai, Kotaro Miura, Eiichi Nakamura*



Use of the Chiral Pool – Practical Asymmetric Organocatalytic Strecker Reaction with Quinine

Adv. Synth. Catal. **2009**, 351, 1019–1024


 Rüdiger Reingruber, Thomas Baumann, Stefan Dahmen,*
Stefan Bräse*

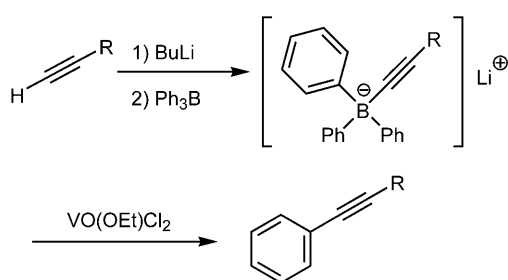


1019

Selective Oxidative Ligand Coupling of Organoborates Bearing an Alkynyl Group

Adv. Synth. Catal. **2009**, 351, 1025–1028

 Toru Amaya, Yusuke Tsukamura, Toshikazu Hirao*

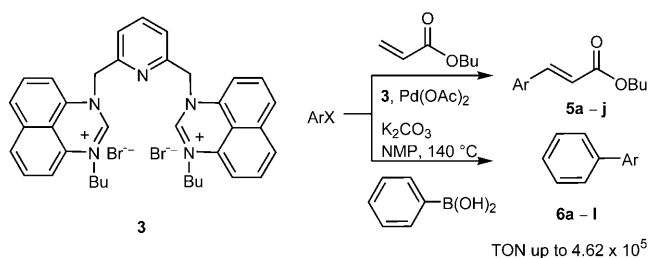


1025

A Lutidine-Bridged Bis-Perimidinium Salt: Synthesis and Application as a Precursor in Palladium-Catalyzed Cross-Coupling Reactions

Adv. Synth. Catal. **2009**, 351, 1029–1034


 Tao Tu,* Jagadeesh Malineni, Xiaoling Bao,
Karl Heinz Dötz*

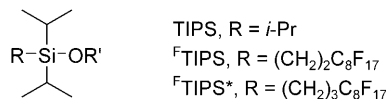


1029

Comparison of the Relative Reactivities of the Triisopropylsilyl Group With Two Fluorous Analogs

Adv. Synth. Catal. **2009**, 351, 1035–1040

 Amador Garcia Sancho, Xiao Wang, Bin Sui,
Dennis P. Curran*




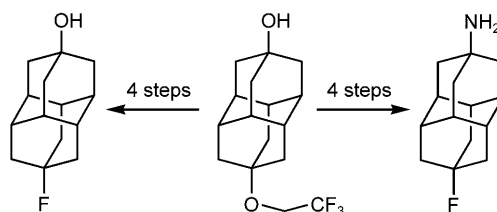
1035

FULL PAPERS

Selective Preparation of Diamondoid Fluorides

Adv. Synth. Catal. **2009**, 351, 1041–1054


 Hartmut Schwertfeger, Christian Würtele, Heike Hausmann,
Jeremy E. P. Dahl, Robert M. K. Carlson, Andrey A. Fokin,
Peter R. Schreiner*

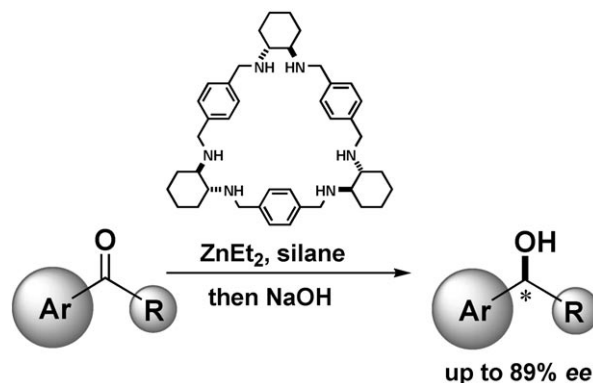


1041

- 1055** Convenient Enantioselective Hydrosilylation of Ketones Catalyzed by Zinc-Macrocyclic Oligoamine Complexes


Adv. Synth. Catal. **2009**, 351, 1055–1063

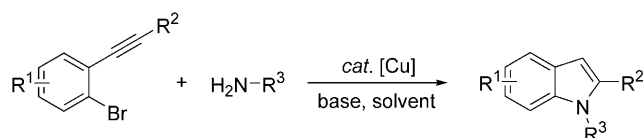
 Jadwiga Gajewy, Marcin Kwit,* Jacek Gawroński*



- 1064** Copper-Catalyzed *N*-Arylation/Hydroamin(d)ation Domino Synthesis of Indoles and its Application to the Preparation of a Chek1/KDR Kinase Inhibitor Pharmacophore


Adv. Synth. Catal. **2009**, 351, 1064–1072

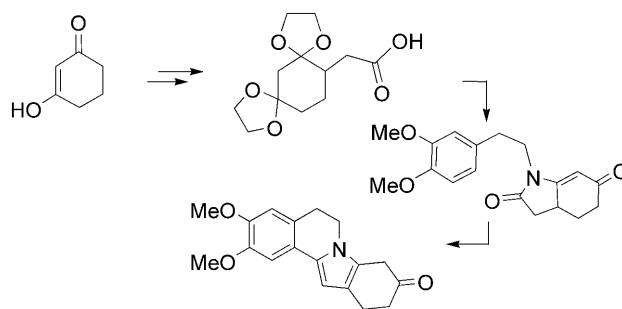
 Lutz Ackermann,* Sebastian Barfüßer, Harish K. Potukuchi



- 1073** Synthesis of 2,6-Dioxo-1,2,3,4,5,6-hexahydroindoles by Acid-Catalyzed Cyclization of Acetal-Protected (2,4-Dioxo-cyclohex-1-yl)acetamides and their Transformation into 5,8,9,10-Tetrahydro-6*H*-indolo[2,1-*a*]isoquinolin-9-ones

Adv. Synth. Catal. **2009**, 351, 1073–1079

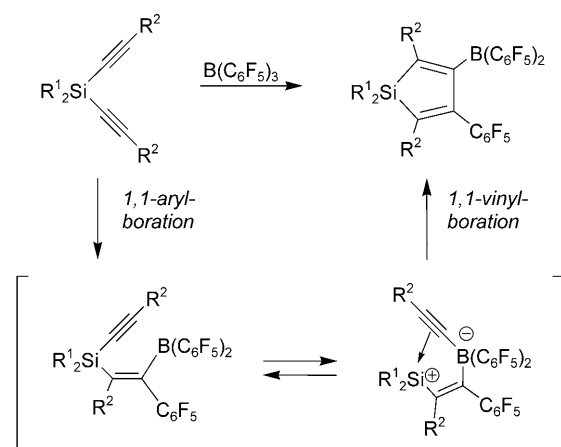
 Benard Juma, Muhammad Adeel, Alexander Villinger, Helmut Reinke, Anke Spannberg, Christine Fischer, Peter Langer*



- 1080** Reaction of Bis(alkynyl)silanes with Tris(pentafluorophenyl)borane: Synthesis of Bulky Silole Derivatives by Means of 1,1-Carbaboration under Mild Reaction Conditions


Adv. Synth. Catal. **2009**, 351, 1080–1088

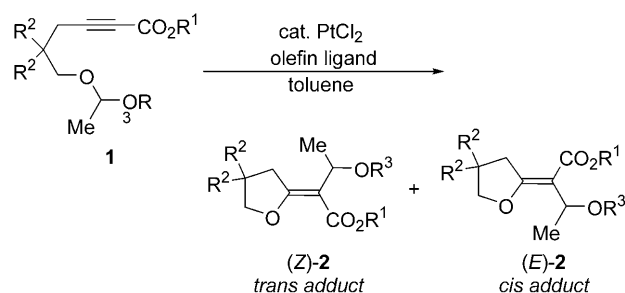
 Gereon Dierker, Juri Ugolotti, Gerald Kehr, Roland Fröhlich, Gerhard Erker*



- 1089** Stereochemical Control by an Ester Group or Olefin Ligand in Platinum-Catalyzed Carboalkoxylation of 6-(1-Alkoxyethoxy)-hex-2-ynoates

Adv. Synth. Catal. **2009**, 351, 1089–1100

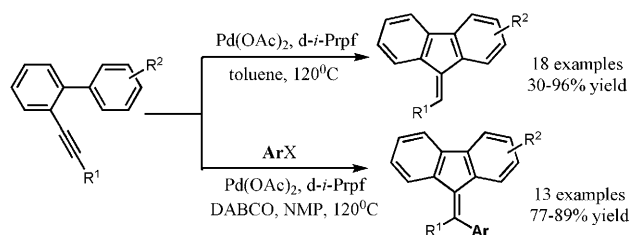
 Itaru Nakamura,* Ching Siew Chan, Toshiharu Araki, Masahiro Terada, Yoshinori Yamamoto



Synthesis of Fluorenes *via* the Palladium-Catalyzed 5-*exo-dig* Annulation of *o*-Alkynylbiaryls

Adv. Synth. Catal. **2009**, 351, 1101–1114

Natalia Chernyak, Vladimir Gevorgyan*

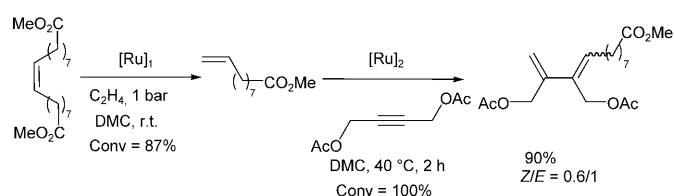


1101

First Transformation of Unsaturated Fatty Esters Involving Enyne Cross-Metathesis

Adv. Synth. Catal. **2009**, 351, 1115–1122

Virginie Le Ravalec, Cédric Fischmeister, Christian Bruneau*

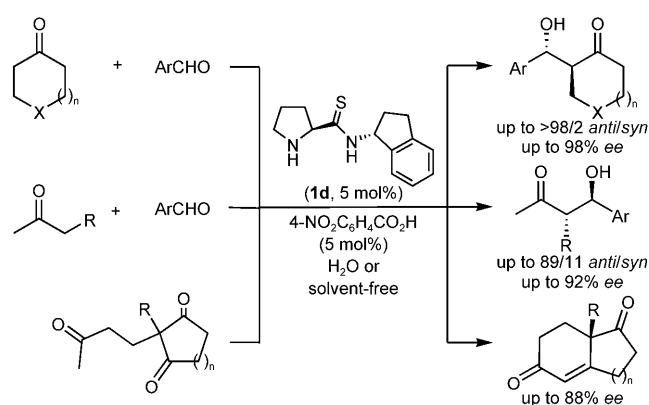


1115

Water *versus* Solvent-Free Conditions for the Enantioselective Inter- and Intramolecular Aldol Reaction Employing L-Prolinamides and L-Prolinethioamides as Organocatalysts

Adv. Synth. Catal. **2009**, 351, 1123–1131

Diana Almaši, Diego A. Alonso,* Andrea-Nekane Balaguer, Carmen Nájera

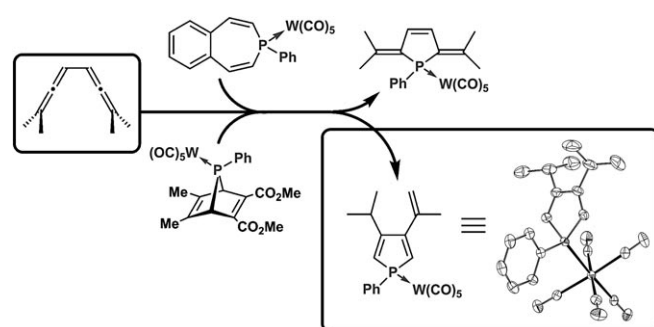


1123

Phosphinidene Addition to Conjugated Allenes

Adv. Synth. Catal. **2009**, 351, 1132–1138

Federica Bertini, Jan B. M. Wit, Murat Ünal, Franciscus J. J. de Kanter, Marius Schakel, J. Chris Slootweg, Andreas W. Ehlers, Tom Nijbacker, Corine M. D. Komen, Martin Lutz, Anthony L. Spek, Koop Lammertsma*

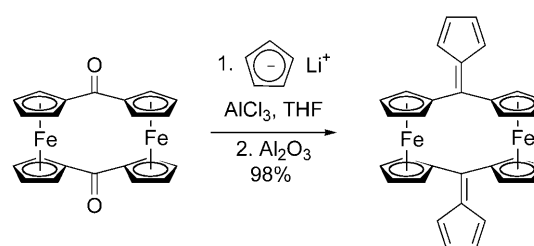


1132

[1.1]Ferrocenophane-1,12-dione as a Precursor of 1,12-Di(cyclopenta-2,4-dienylidene)-[1.1]ferrocenophane, a Doubly Bridged Difulvene

Adv. Synth. Catal. **2009**, 351, 1139–1147

José Ramon Garabatos-Perera, Rudolf Wartchow, Holger Butenschön*

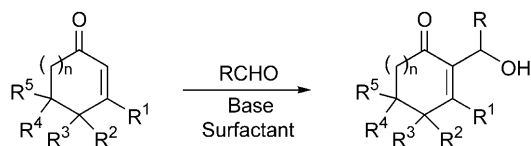


1139

- 1148** Cyclic Enones as Substrates in the Morita–Baylis–Hillman Reaction: Surfactant Interactions, Scope and Scalability with an Emphasis on Formaldehyde

Adv. Synth. Catal. **2009**, 351, 1148–1154


Brett D. Schwartz, Achim Porzelle, Kevin S. Jack,
Jonathan M. Faber, Ian R. Gentle, Craig M. Williams*

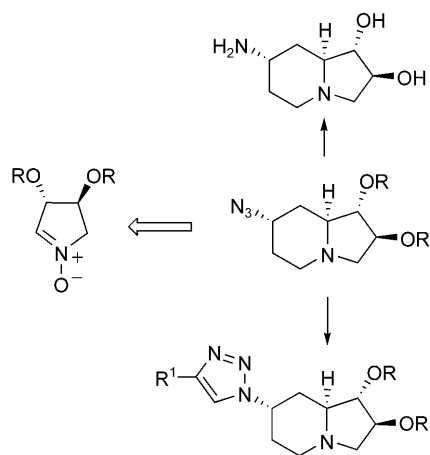


UPDATES

- 1155** Synthesis of the New 7*S*-Aminolentiginosine and Derivatives

Adv. Synth. Catal. **2009**, 351, 1155–1161

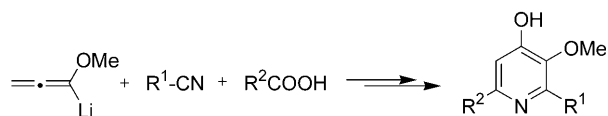
 Franca M. Cordero,* Paola Bonanno, Sven Neudeck,
Carolina Vurchio, Alberto Brandi*



- 1162** Highly Functionalised Enantiopure 4-Hydroxypyridine Derivatives by a Versatile Three-Component Synthesis

Adv. Synth. Catal. **2009**, 351, 1162–1166

Christian Eidamshaus, Hans-Ulrich Reissig*



Conversion of functionalised, enantiopure nitriles and carboxylic acids into 4-hydroxypyridines

CORRIGENDUM

The communication by Kye-Simeon Masters and Bernard L. Flynn in Issue 4, 2009, pp. 530–536 (DOI: 10.1002/adsc.200800678), should have appeared in this issue dedicated to Professor Armin de Meijere. It was published in Issue 4, 2009, by mistake. On the title page, below the received and publication dates, the following dedication should appear:

“Dedicated to Professor Armin de Meijere on the occasion of his 70th birthday.”

The editorial office apologizes for this mistake.