

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.

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.

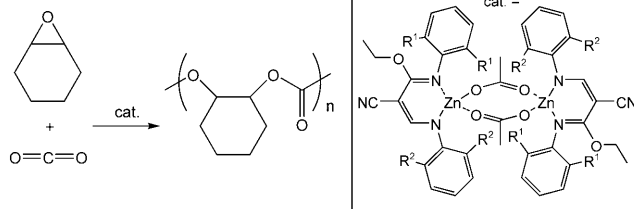
succeeding Journal für praktische Chemie
(founded in 1828)

2005, 347, 10, Pages 1315–1456

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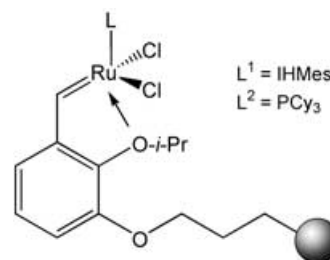
Alternating Copolymerization of Cyclohexene Oxide and CO₂ Catalyzed by Zinc Complexes with New 3-Amino-2-cyanoimidoacrylate Ligands

Mario Kröger, Cristina Folli, Olaf Walter, Manfred Döring*



1325

Dirk Fischer, Siegfried Blechert*

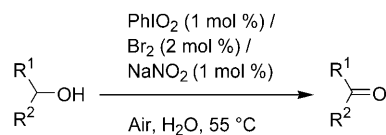


1329

- 1333** An Efficient Catalytic Aerobic Oxidation of Alcohols in Water Using Hypervalent Iodine(V)

Adv. Synth. Catal. **2005**, 347, 1333–1336

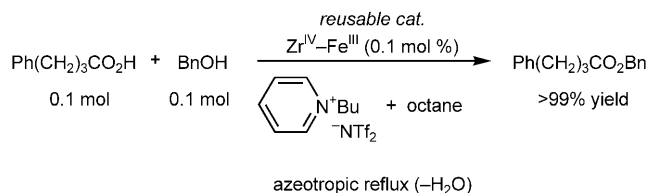
Ruizhu Mu, Zhongquan Liu, Zhanjun Yang, Zhengang Liu, Longmin Wu, Zhong-Li Liu*



- 1337** Zr(IV)–Fe(III), –Ga(III), and –Sn(IV) Binary Metal Complexes as Synergistic and Reusable Esterification Catalysts

Adv. Synth. Catal. **2005**, 347, 1337–1340

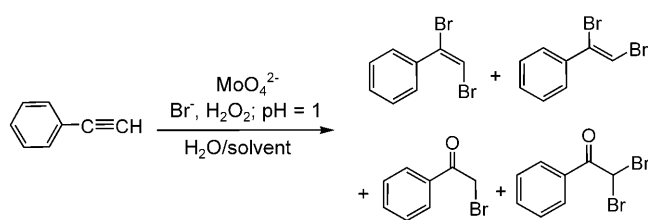
Atsushi Sato, Yuka Nakamura, Toshikatsu Maki, Kazuaki Ishihara,*Hisashi Yamamoto



- 1341** Oxybromination of Ethynylbenzene Catalysed by Molybdenum Complexes in Organic Solvent and in Ionic Liquids

Adv. Synth. Catal. **2005**, 347, 1341–1344

Valeria Conte, Barbara Floris,* Pierluca Galloni, Adriano Silvagni

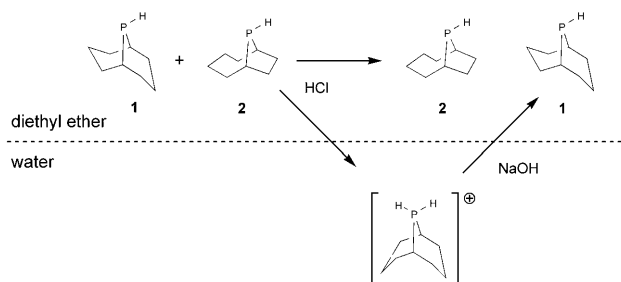


- 1345** Separation of Phobane Isomers by Selective Protonation

Adv. Synth. Catal. **2005**, 347, 1345–1348



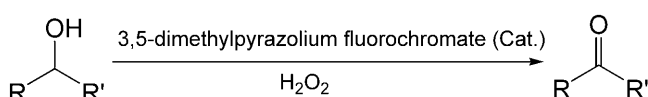
Michael R. Eberhard, Emma Carrington-Smith, Eite E. Drent, Paul S. Marsh, A. Guy Orpen, Hirihattaya Phetmung, Paul G. Pringle*



- 1349** 3,5-Dimethylpyrazolium Fluorochromate(VI)-Catalysed Oxidation of Organic Substrates by Hydrogen Peroxide under Solvent-Free Conditions

Adv. Synth. Catal. **2005**, 347, 1349–1352

Mihir K. Chaudhuri,* Sanjay K. Dehury, Sahid Hussain, Ankur Duarah, Nayanmoni Gogoi, M. Lakshmi Kantam*

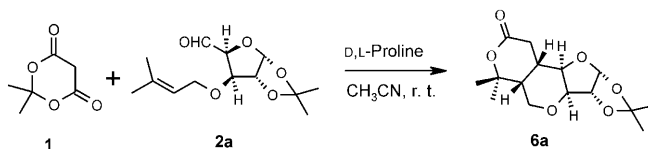


- 1353** First Examples of Proline-Catalyzed Domino Knoevenagel/Hetero-Diels–Alder/Elimination Reactions

Adv. Synth. Catal. **2005**, 347, 1353–1355



Gowravaram Sabitha,* Narjis Fatima, E. Venkata Reddy, J. S. Yadav

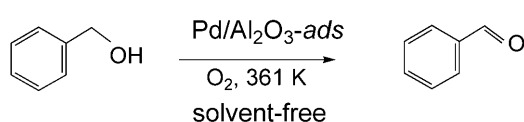


Solvent-Free Aerobic Oxidation of Alcohols Catalyzed by an Efficient and Recyclable Palladium Heterogeneous Catalyst

Adv. Synth. Catal. **2005**, 347, 1356–1360



Hongli Wu, Qinghong Zhang, Ye Wang*



Conv.: 97%; Select. 96%
TOF: 1952 h⁻¹

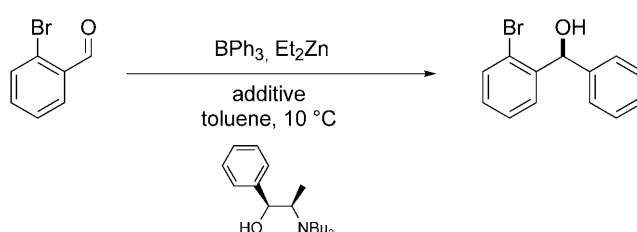
1356

FULL PAPERS

A High-Throughput Screening Approach for the Determination of Additive Effects in Organozinc Addition Reactions to Aldehydes

Adv. Synth. Catal. **2005**, 347, 1361–1368

Jens Rudolph, Matthias Lormann, Carsten Bolm, Stefan Dahmen*



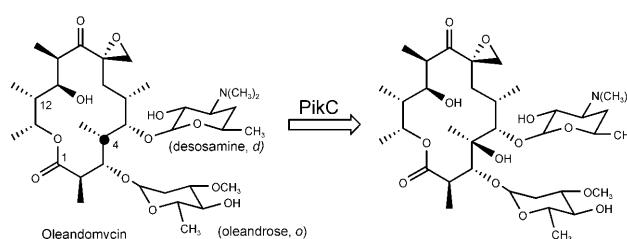
1361

Structural Diversification of Macrolactones by Substrate-Flexible Cytochrome P450 Monooxygenases

Adv. Synth. Catal. **2005**, 347, 1369–1378



Sang Kil Lee, Devi B. Basnet, Jay Sung Joong Hong, Won Seok Jung, Cha Yong Choi, Hei Chan Lee, Jae Kyung Sohng, Keun Garp Ryu, Dae Joong Kim, Jong Seog Ahn, Beom Seok Kim, Hyun Cheol Oh, David H. Sherman, Yeo Joon Yoon*

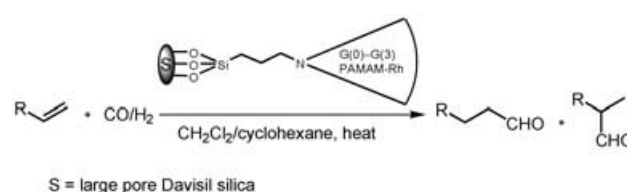


1369

Rhodium Complexed C₂-PAMAM Dendrimers Supported on Large Pore Davisil Silica as Catalysts for the Hydroformylation of Olefins

Adv. Synth. Catal. **2005**, 347, 1379–1388

Jan P. K. Reynhardt, Yong Yang, Abdelhamid Sayari,*
Howard Alper*

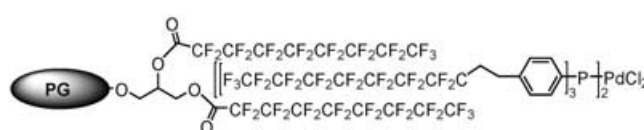


1379

Supramolecular Immobilization of a Perfluoro-Tagged Pd-Catalyst with Dendritic Architectures and Application in Suzuki Reactions

Adv. Synth. Catal. **2005**, 347, 1389–1394

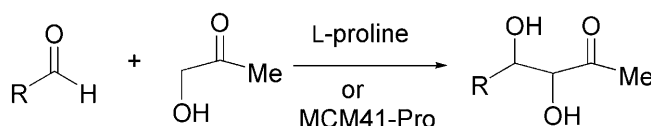
Abel Garcia-Bernabé, Carl Christoph Tzschucke, Willi
Bannwarth,* Rainer Haag*



1389

Asymmetric Aldol Reaction Using Immobilized Proline on Mesoporous Support

Adv. Synth. Catal. **2005**, 347, 1395–1403



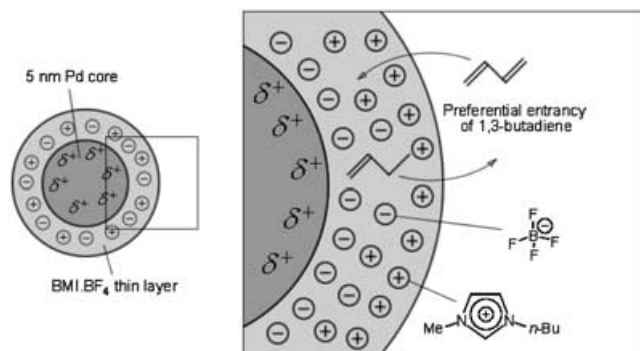
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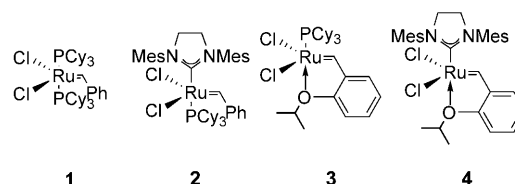
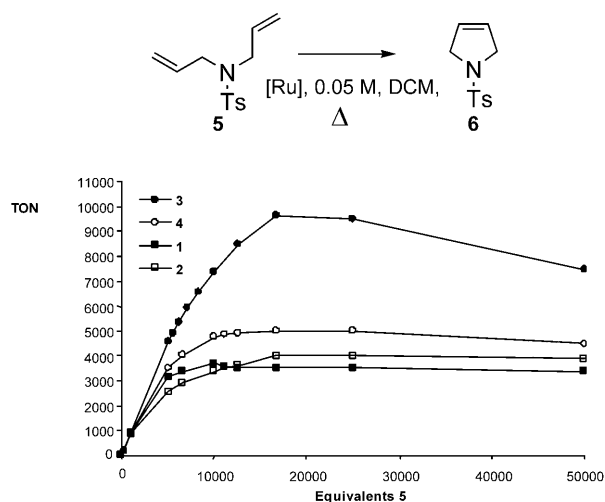
Félix Calderón, Raquel Fernández, Félix Sánchez, Alfonso
Fernández-Mayoralas*

1404 Selective Hydrogenation of 1,3-Butadiene to 1-Butene by Pd(0) Nanoparticles Embedded in Imidazolium Ionic Liquids*Adv. Synth. Catal.* **2005**, 347, 1404–1412

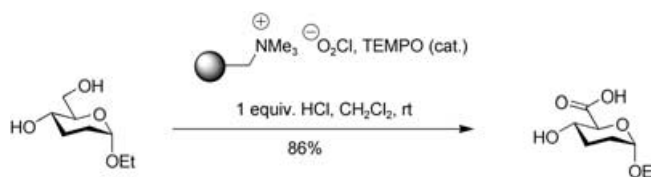
Alexandre P. Umpierre, Giovanna Machado, Gerhard H. Fecher, Jonder Morais, Jairton Dupont*

**1413** Unexpected Results of a Turnover Number (TON) Study Utilising Ruthenium-Based Olefin Metathesis Catalysts*Adv. Synth. Catal.* **2005**, 347, 1413–1422

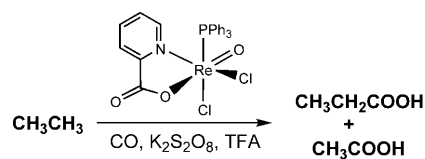
Simon Maechling, Mirko Zaja, Siegfried Blechert*

**1423** Practical TEMPO-Mediated Oxidation of Alcohols using Different Polymer-Bound Co-Oxidants*Adv. Synth. Catal.* **2005**, 347, 1423–1434

Katrin Kloth, Marco Brünjes, Eike Kunst, Thomas Jöge, Florian Gallier, Alexander Adibekian, Andreas Kirschning*

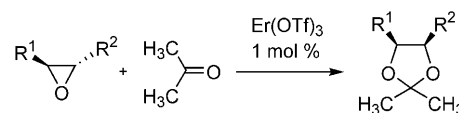
**1435** Single-Pot Ethane Carboxylation Catalyzed by New Oxo-rhenium(V) Complexes with N,O Ligands*Adv. Synth. Catal.* **2005**, 347, 1435–1446

Alexander M. Kirillov, Matti Haukka, Marina V. Kirillova, Armando J. L. Pombeiro*



Synthesis of Acetonides from Epoxides Catalyzed by Erbium(III) Triflate

Adv. Synth. Catal. **2005**, 347, 1447–1450

**1447**

Antonio Procopio,* Renato Dalpozzo, Antonio De Nino,
Loredana Maiuolo, Monica Nardi, Beatrice Russo

BOOK REVIEW

Handbook of Fluorous Chemistry

Edited by J. A. Gladysz, D. P. Curran, I. T. Horváth

Adv. Synth. Catal. **2005**, 347, 1451–1309

Berth-Jan Deelman

1451

Supporting information on the WWW (see article for access details).

*Author to whom correspondence should be addressed.

