

Tetrahedron Letters Vol. 46, No. 14, 2005

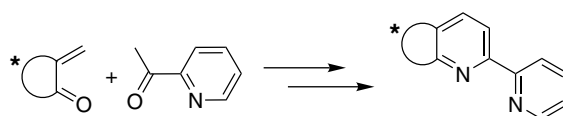
Contents

COMMUNICATIONS

Towards benign syntheses of bipyridines: versatile approach to supramolecular building blocks

pp 2361–2363

Gareth W. V. Cave* and Colin L. Raston*



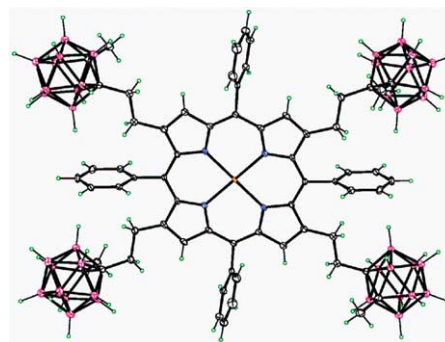
Chiral and achiral bipyridines are readily accessible via a solvent-free Michael addition, followed by treatment with ammonium acetate in acetic acid, as a 'one pot' protocol, affording pure products in high yield.

Novel carboranylporphyrins for application in boron neutron capture therapy (BNCT) of tumors

pp 2365–2368

J. Caleb Clark, Frank R. Fronczek and M. Graça H. Vicente*

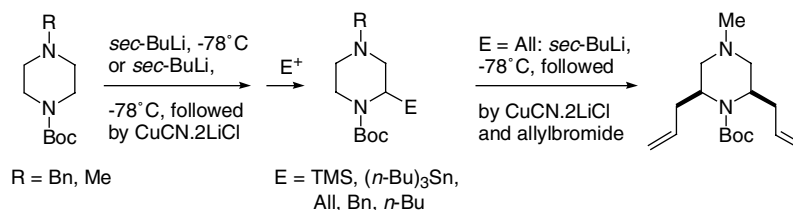
The syntheses of a new carboranylpyrrole and carboranylporphyrins are described and the X-ray structures of key molecules are presented. The novel porphyrins contain 32–43% boron by weight and may have application in the BNCT treatment of tumors.



Synthesis of 2-substituted piperazines via direct α -lithiation

pp 2369–2371

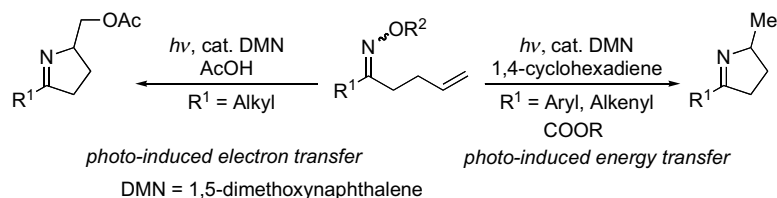
Martin Berkheij, Lisan van der Sluis, Claudia Sewing, Dennis J. den Boer, Jan Willem Terpstra, Henk Hiemstra, Wouter I. Iwema Bakker, Adri van den Hoogenband* and Jan H. van Maarseveen*



Photochemical radical cyclization of γ,δ -unsaturated ketone oximes to 3,4-dihydro-2H-pyrroles

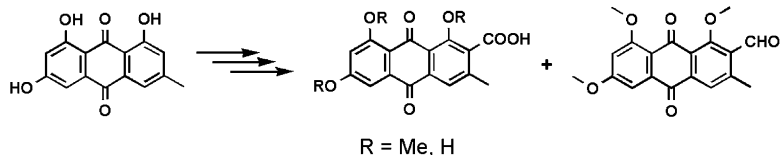
pp 2373–2376

Mitsuru Kitamura, Yutaka Mori and Koichi Narasaka*

**An efficient regioselective synthesis of endocrocin and structural related natural anthraquinones starting from emodin**

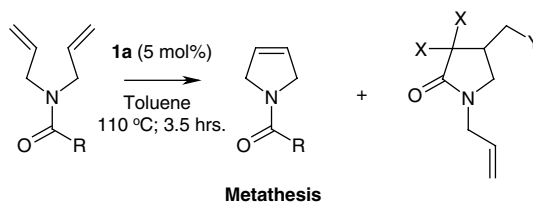
pp 2377–2380

Mario Waser, Bernd Lackner, Joachim Zuschrader, Norbert Müller and Heinz Falk*

**Intramolecular metathesis versus Kharasch reactions using the Grubbs metathesis catalyst: towards catalyst economy**

pp 2381–2385

James Faulkner, Chris D. Edlin, David Fengas, Ian Preece, Peter Quayle* and Stuart N. Richards

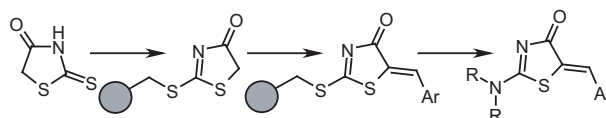


The Grubbs metathesis catalysts can promote either RCM or ATRC reactions depending on the reaction conditions employed.

Traceless solid-phase synthesis of 2-amino-5-alkylidene-thiazol-4-ones

pp 2387–2391

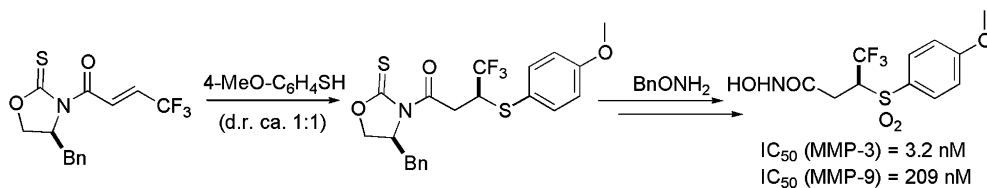
Maurizio Pulici* and Francesca Quartieri



Novel highly potent, structurally simple γ -trifluoromethyl γ -sulfone hydroxamate inhibitor of stromelysin-1 (MMP-3)

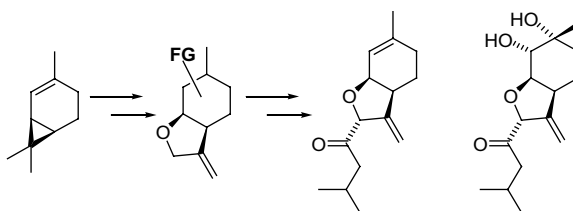
pp 2393–2396

Monica Sani, Gabriele Candiani, Françoise Pecker, Luciana Malpezzi and Matteo Zanda*

**The enantioselective syntheses of bisabolane sesquiterpenes Lepistrone and Cheimonophyllon E**

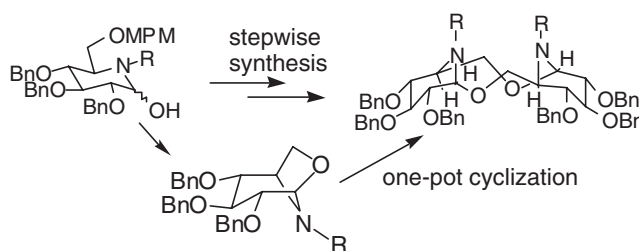
pp 2397–2398

Timothy John Brocksom,* Paulo R. Zanotto and Ursula Brocksom

**Synthesis of N-protected azaoligosaccharides and their cyclic derivatives**

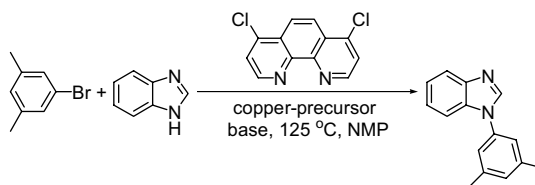
pp 2399–2403

Daisuke Sawada, Hideyo Takahashi, Moto Shiro and Shiro Ikegami*

**Mild copper-catalyzed N-arylation of azaheterocycles with aryl halides**

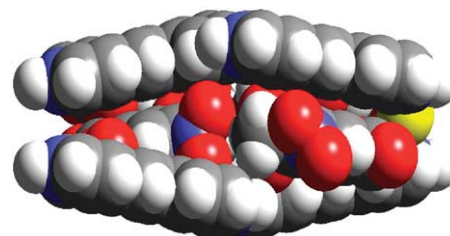
pp 2405–2409

Mark Kuil, E. Koen Bekedam, Gerben M. Visser, Adri van den Hoogenband,* Jan Willem Terpstra, Paul C. J. Kamer, Piet W. N. M. van Leeuwen and Gino P. F. van Strijdonck*

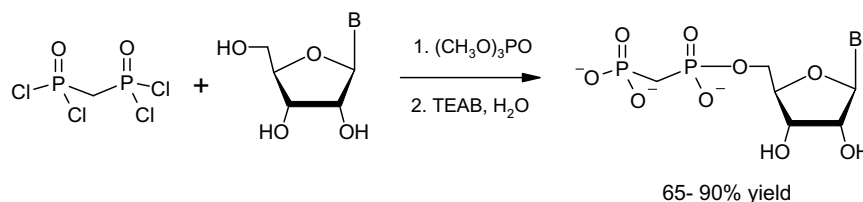


A novel supramolecular assembly of 3,5-dinitro-4-methylbenzoic acid and *trans*-1,2-bis(4-pyridyl)ethene pp 2411–2415
 Sunil Varughese and V. R. Pedireddi*

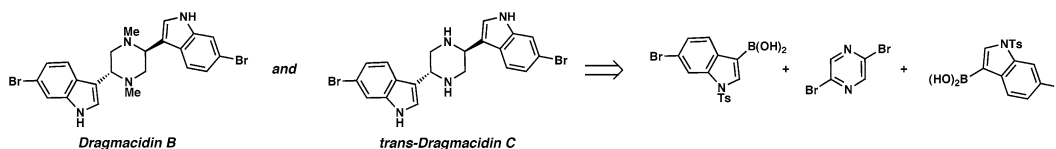
Co-crystallization of 3,5-dinitro-4-methylbenzoic acid and *trans*-1,2-bis(4-pyridyl)ethene gave an exotic assembly influenced by the Pr(III) species under hydrothermal conditions and a layered structure by direct co-crystallization of the reactants at ambient conditions.



A direct method for the synthesis of nucleoside 5'-methylenebis(phosphonate)s from nucleosides pp 2417–2421
 Marcin Kalek, Jacek Jemielity, Janusz Stepinski, Ryszard Stolarski and Edward Darzynkiewicz*



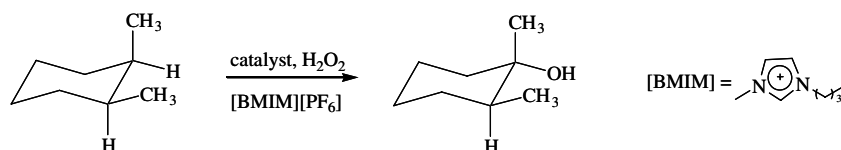
The formal total synthesis of dragmacidin B, *trans*-dragmacidin C, and *cis*- and *trans*-dihydrohamacanthins A pp 2423–2426
 Neil K. Garg and Brian M. Stoltz*



The facile formal total synthesis of dragmacidin B, *trans*-dragmacidin C, and *cis*- and *trans*-dihydrohamacanthins A is presented. Our approach to these bis(indole) alkaloids involves a one-pot, four-step cross-coupling/deprotection sequence where complete halogen selectivity is observed. A related approach to access the dihydrohamacanthins is also described.

Highly efficient C–H insertion reactions of hydrogen peroxide catalyzed by homogeneous and heterogeneous methyltrioxorhenium systems in ionic liquids pp 2427–2432

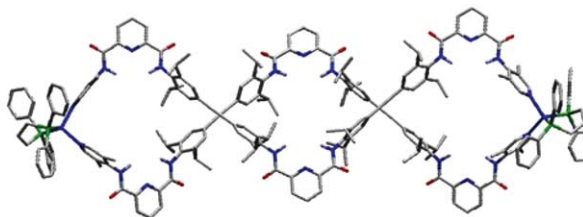
Gianluca Bianchini, Marcello Crucianelli,* Francesco De Angelis, Veronica Neri and Raffaele Saladino*



Self-assembly and characterization of a giant metallocycle

pp 2433–2436

Hye-Young Jang, Sung-Youn Chang, Kyoung-Jin Chang and Kyu-Sung Jeong*

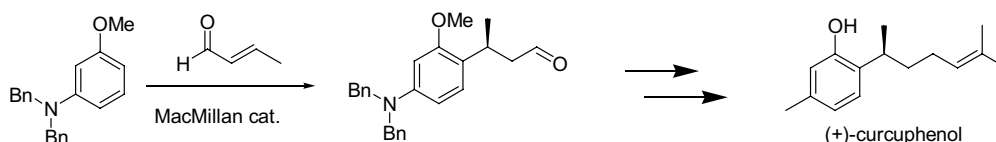


A large 100-membered metallocycle with multiple hydrogen-bonding sites is prepared by the coordination-mediated self-assembly.

**Efficient total synthesis of (+)-curcuphenol via asymmetric organocatalysis**

pp 2437–2439

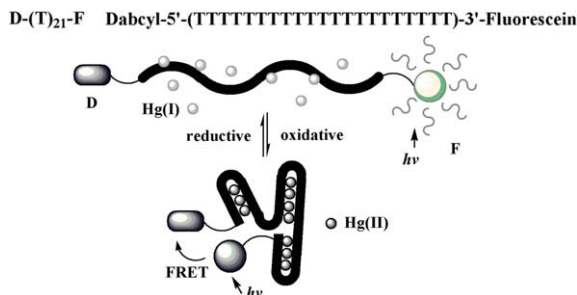
Sung-Gon Kim,* Jaehak Kim and Heejung Jung

**Fluorescent sensor for redox environment: a redox controlled molecular device based on the reversible mercury mediated folded structure formation of oligothymidylate**

pp 2441–2443

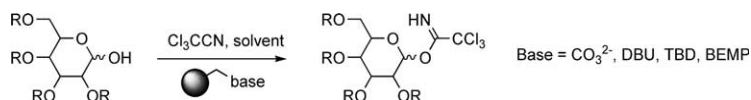
Yoko Miyake and Akira Ono*

We report the synthesis of a novel molecular sensor that changes fluorescence emission intensity according to redox environments. The sensor is based on the reversible mercury mediated folded structure formation of oligothymidylates.

**A study of polymer-supported bases for the solution phase synthesis of glycosyl trichloroacetimidates**

pp 2445–2448

Jose Luis Chiara,* Lourdes Encinas and Beatriz Díaz

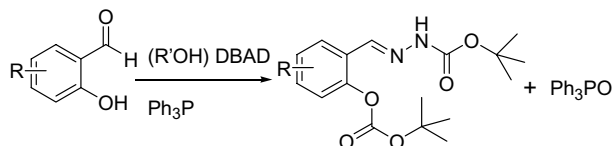


Polystyrene-supported strong organic bases are highly efficient reagents for the solution-phase synthesis of glycosyl trichloroacetimidates, affording quantitative yields of pure products in short reaction times after simple filtration and evaporation.

An exception to the normal Mitsunobu reaction with phenols; the formation of hydrazones from salicylaldehydes

pp 2449–2452

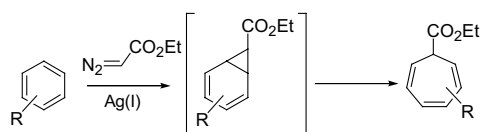
Mario Girard,* Philippe Murphy and Nancy N. Tsou



A silver-catalyzed Büchner reaction

pp 2453–2455

Carl J. Lovely,* R. Greg Browning, Vivek Badarinarayana and H. V. Rasika Dias*

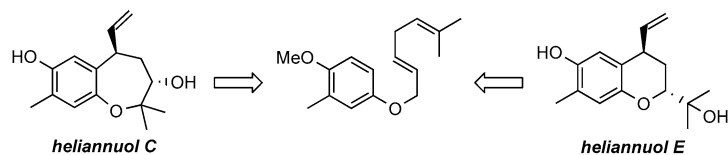


A polyfluorinated silver scorpionate complex catalyzes the carbene addition to aromatic rings providing the corresponding cycloheptatriene.

Total synthesis of (±)-heliannuol C and E via aromatic Claisen rearrangement

pp 2457–2460

James R. Vyvyan,* Jennifer M. Oaksmith, Bevin W. Parks and Elaine M. Peterson

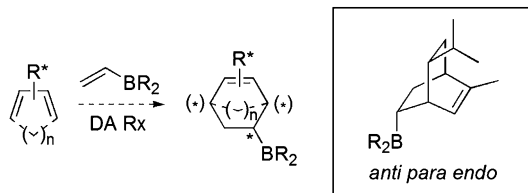


(±)-Heliannuols C and E were synthesized from a common epoxide intermediate in only seven steps overall from 2-methylanisole.

Computational evaluation of asymmetric Diels–Alder reactions of vinylboranes with chiral dienes

pp 2461–2464

Silvina C. Pellegrinet,* María A. Silva* and Jonathan M. Goodman*



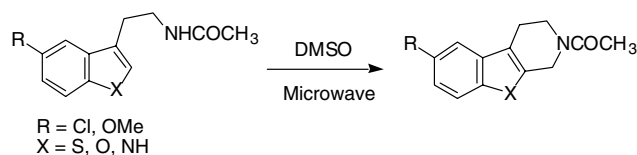
We report the first calculations of the Diels–Alder reaction of a vinylborane with a chiral diene. Highly selective reactions are shown to be feasible by transition state modeling using DFT methods.



Pictet–Spengler heterocyclizations via microwave-assisted degradation of DMSO

pp 2465–2468

Christophe Mésangeau, Saïd Yous, Basile Pérès, Daniel Lesieur and Thierry Besson*

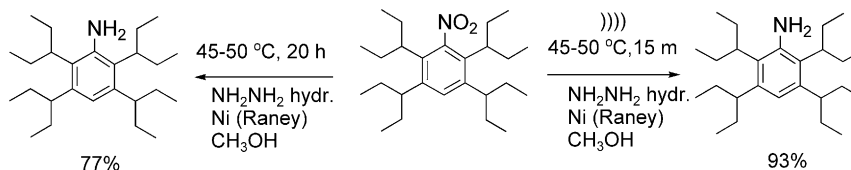


Microwave-assisted rapid decomposition of DMSO was explored in order to perform Pictet–Spengler heterocyclizations in good conditions.

High intensity ultrasound-assisted reduction of sterically demanding nitroaromatics

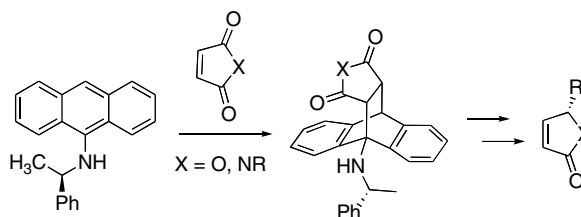
pp 2469–2473

Georgios A. Heropoulos,* Spyros Georgakopoulos and Barry R. Steele

**A new, chiral aminoanthracene for the Diels–Alder/retro-Diels–Alder sequence in lactam and butenolide synthesis**

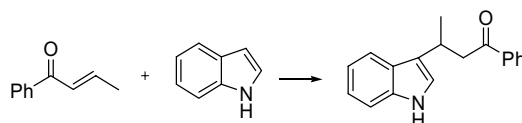
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Amitav Sanyal, Qian Yuan and John K. Snyder*

**Iodine-catalyzed highly efficient Michael reaction of indoles under solvent-free condition**

pp 2479–2482

Bimal K. Banik,* Miguel Fernandez and Clarissa Alvarez

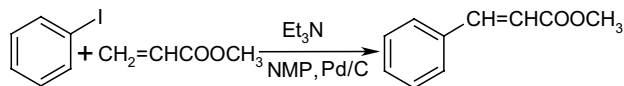


A new iodine-catalyzed remarkably simple Michael reaction of indoles with enones was developed.

Low temperature recyclable catalyst for Heck reactions using ultrasound

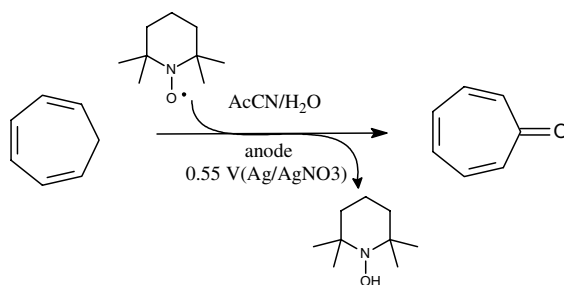
pp 2483–2485

Girish V. Ambulgekar, Bhalchandra M. Bhanage and Shriniwas D. Samant*

**Allylic oxidation: easy synthesis of alkenones from activated alkenes with TEMPO**

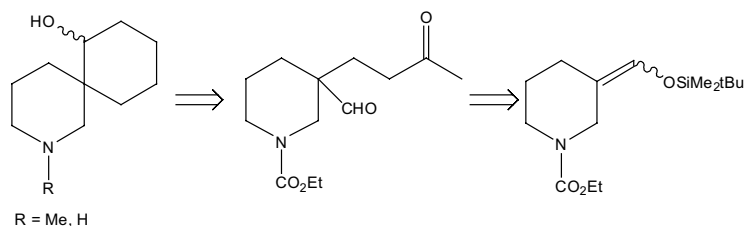
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Tony Breton, Denis Liaigre and El Mustapha Belgsir*

**Synthesis of racemic nitramine, isonitramine and sibirine**

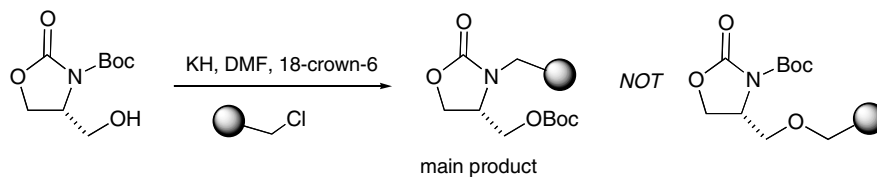
pp 2491–2493

Abdallah Deyine,* Jean-Marie Poirier, Lucette Duhamel and Pierre Duhamel

**Reinvestigation of a polymer-supported chiral auxiliary derived from serine**

pp 2495–2497

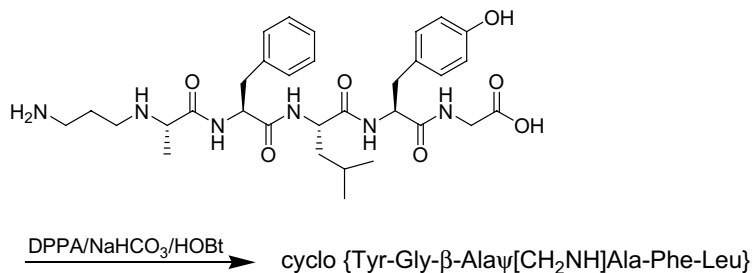
Steven M. Allin,* Cara A. Johnson and Andreas Timm



Synthesis of a cyclic pseudopeptide containing a flexible β -Ala ψ [CH₂NH]unit

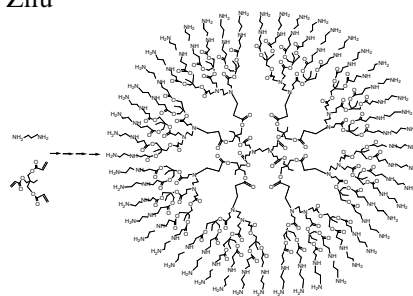
pp 2499–2501

James Jun Wen* and Arno F. Spatola

**Fast growing dendritic poly(ester–amines) from alternate reaction of EDA and TMPTA**

pp 2503–2505

Dongmei Xu, Keda Zhang* and Xiulin Zhu

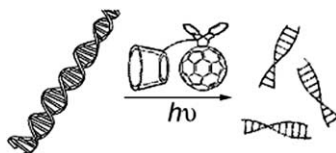


Fast growing dendritic poly(ester–amines) was designed and constructed from directly alternate reaction of ethylene diamine (EDA) and trimethylolpropane triacrylate (TMPTA) under mild conditions without protection–deprotection steps.

A water-soluble β -cyclodextrin derivative possessing a fullerene tether as an efficient photodriven DNA-cleavage reagent

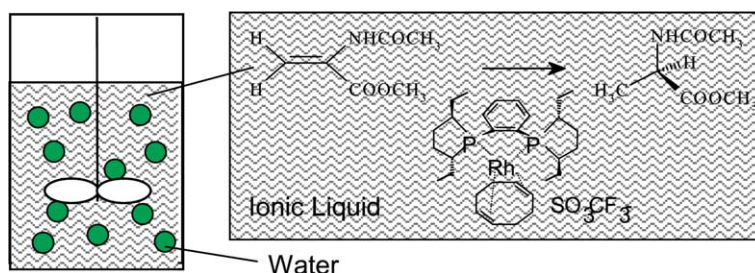
pp 2507–2511

Yu Liu,* Yan-Li Zhao, Yong Chen, Peng Liang and Li Li

**Beneficial effect of water as second solvent in ionic liquid biphasic catalytic hydrogenations**

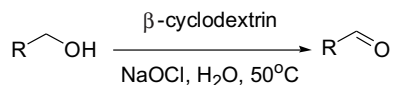
pp 2513–2516

Adi Wolfson,* Ivo F. J. Vankelecom and Pierre A. Jacobs



Transition metal-free and substrate-selective oxidation of alcohols using water as an only solvent in the presence of β -cyclodextrin pp 2517–2520

Hong-Bing Ji,* Dong-Po Shi, Ming Shao, Zhong Li and Le-Fu Wang

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*Corresponding author

Supplementary data available via ScienceDirect

COVER

Self-assembled is a giant, 100-membered metallocycle that can fold to create three topologically discrete subcavities, thus capable of binding up to three molecules of a diamide guest by hydrogen-bonding interactions. *Tetrahedron Letters* **2005**, 46, 2433–2436.

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