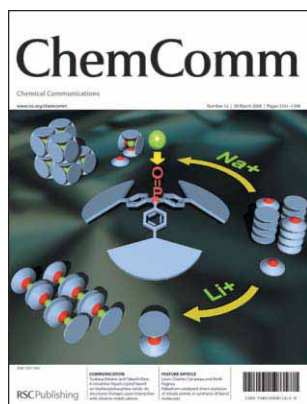


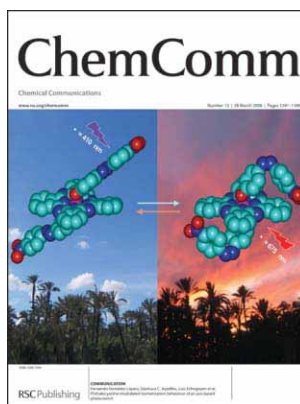
IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS (12) 1241–1340 (2006)



Cover

A schematic illustration of the assembled structural changes of liquid crystalline complexes based on a triphenylphosphine oxide from columnar simple stack to cubic and to columnar sandwich induced by metal cation–phosphine oxide interactions. Image reproduced by permission of Tsukasa Hatano and Takashi Kato from *Chem. Commun.*, 2006, 1277.



Inside cover

View of a photoswitchable bis(azobenzene) silicon phthalocyanine triad over the Palm Grove of Elche, a UNESCO World Heritage Site, at both sunrise and sunset. Image reproduced by permission of José L. Rodríguez-Redondo, Ángela Sastre-Santos, Fernando Fernández-Lázaro, Dilcelli Soares, Gianluca C. Azzellini, Bevan Elliott and Luis Echegoyen from *Chem. Commun.*, 2006, 1265.

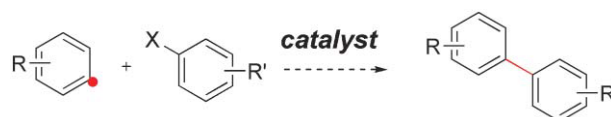
FEATURE ARTICLE

1253

Palladium-catalyzed direct arylation of simple arenes in synthesis of biaryl molecules

Louis-Charles Campeau and Keith Fagnou*

Intramolecular and intermolecular catalytic direct arylation reactions of simple arenes: methodological development and application in organic synthesis.



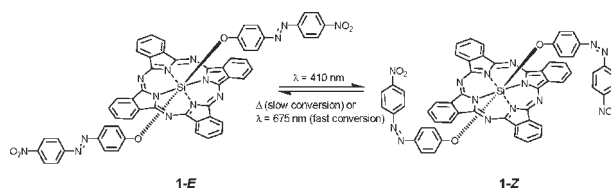
COMMUNICATIONS

1265

Phthalocyanine-modulated isomerization behaviour of an azo-based photoswitch

José L. Rodríguez-Redondo, Ángela Sastre-Santos, Fernando Fernández-Lázaro,* Dilcelli Soares, Gianluca C. Azzellini,* Bevan Elliott and Luis Echegoyen*

Selective excitation of the phthalocyanine moiety of a photoswitchable azobenzene–phthalocyanine–azobenzene triad allows for modification of the *E*–*Z* ratio, which in turn controls the emission intensity of the phthalocyanine.



EDITORIAL STAFF

Editor

Sarah Thomas

Deputy editor

Kathryn Sear

Assistant editors

Sarah Dixon, Nicola Nugent, Alison Stoddart, Katherine Vickers, Jenna Wilson

Publishing assistants

Jackie Cockrill, Jayne Drake, Jayne Gough, Rachel Hegarty

Team leader, serials production

Helen Saxton

Technical editors

Celia Clarke, Laura Howes, Sandra Jones, Caroline Moore, David Parker, Michael Smith, Ken Wilkinson

Administration coordinator

Sonya Spring

Editorial secretaries

Lynne Braybrook, Donna Fordham, Jill Segev, Julie Thompson

Publisher

Adrian Kybett

Chemical Communications (print: ISSN 1359-7345; electronic: ISSN 1364-548X) is published 48 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, UK CB4 0WF. All orders, with cheques made payable to the Royal Society of Chemistry, should be sent to RSC Distribution Services, c/o Portland Customer Services, Commerce Way, Colchester, Essex, UK CO2 8HP. Tel +44 (0)1206 226050; E-mail sales@rscdistribution.org

2006 Annual (print + electronic) subscription price: £1745; US\$3193. 2006 Annual (electronic) subscription price: £1570; US\$2874. Customers in Canada will be subject to a surcharge to cover GST. Customers in the EU subscribing to the electronic version only will be charged VAT. If you take an institutional subscription to any RSC journal you are entitled to free, site-wide web access to that journal. You can arrange access via Internet Protocol (IP) address at www.rsc.org/ip. Customers should make payments by cheque in sterling payable on a UK clearing bank or in US dollars payable on a US clearing bank. Periodicals postage paid at Rahway, NJ, USA and at additional mailing offices. Airfreight and mailing in the USA by Mercury Airfreight International Ltd., 365 Blair Road, Avenel, NJ 07001, USA. US Postmaster: send address changes to Chemical Communications, c/o Mercury Airfreight International Ltd., 365 Blair Road, Avenel, NJ 07001. All despatches outside the UK by Consolidated Airfreight. PRINTED IN THE UK

© The Royal Society of Chemistry, 2006. Apart from fair dealing for the purposes of research or private study for non-commercial purposes, or criticism or review, as permitted under the Copyright, Designs and Patents Act 1988 and the Copyright and Related Rights Regulations 2003, this publication may only be reproduced, stored or transmitted, in any form or by any means, with the prior permission in writing of the Publisher or in the case of reprographic reproduction in accordance with the terms of licences issued by the Copyright Licensing Agency in the UK. US copyright law is applicable to users in the USA. The Royal Society of Chemistry takes reasonable care in the preparation of this publication but does not accept liability for the consequences of any errors or omissions. Inclusion of an item in this publication does not imply endorsement by The Royal Society of Chemistry of the content of the original documents to which that item refers.

ChemComm

Chemical Communications

www.rsc.org/chemcomm

EDITORIAL BOARD

Chairman

Roeland J. M. Nolte, Nijmegen, The Netherlands
nolte@sci.kun.nl

Shankar Balasubramanian, Cambridge, UK
sb10031@cam.ac.uk

Hans-Ulrich Blaser, Solvias AG, Switzerland
hans-ulrich.blaser@SOLVIAS.com

P. Andrew Evans, Bloomington, USA
chemcomm@indiana.edu

Alois Fürstner, Mülheim, Germany
fuerstner@mpi-muelheim.mpg.de

David Haddleton, Warwick, UK
D.M.Haddleton@warwick.ac.uk

Donald Hilvert, Zürich, Switzerland
hilvert@org.chem.ethz.ch

Mir Wais Hosseini, Strasbourg, France
hosseini@chimie.u-strasbg.fr

Barbara Imperiali, Cambridge, USA
chemcomm@mit.edu

Nazario Martín, Madrid, Spain
nazmar@quim.ucm.es

Dermot O'Hare, Oxford, UK
chemcomm@chem.ox.ac.uk

Ryong Ryoo, Taejeon, Korea
rryoo@kaist.ac.kr

Ferdinand Schüth, Mülheim, Germany
schueth@mpi-muelheim.mpg.de

Jonathan L. Sessler, Austin, USA
chemcommun@cm.utexas.edu

T. Don Tilley, Berkeley, USA
chemcomm@berkeley.edu

ASSOCIATE EDITORS

All submissions should be sent via ReSource:
<http://www.rsc.org/resource>
Manuscripts from North America should be submitted to the appropriate Associate Editor:

Supramolecular

Jonathan L. Sessler

Organic

P. Andrew Evans

Chemical biology

Barbara Imperiali

Inorganic, Organometallic and Materials

T. Don Tilley

Submissions from all other regions should be submitted to the Editor via ReSource at <http://www.rsc.org/resource>. For further information see <http://www.rsc.org/authors>

SCIENTIFIC EDITORS

The Scientific Editors welcome enquiries from potential authors regarding the submission and scientific content of papers. For more information please see <http://www.rsc.org/authors>

Dermot O'Hare
Donald Hilvert
Mir Wais Hosseini
Alois Fürstner

EDITORIAL ADVISORY BOARD

Varinder Aggarwal, Bristol, UK
Takuzo Aida, Tokyo, Japan
Frank Allen, CCDC, Cambridge, UK
Jerry L. Atwood, Columbia, USA
Dario Braga, Bologna, Italy
Jillian M. Buriak, Alberta, Canada
Derrick Clive, Alberta, Canada
Marcetta Darensbourg, College Station, USA
Gregory C. Fu, Cambridge, USA
Tohru Fukuyama, Tokyo, Japan
Lutz Gade, Heidelberg, Germany
Philip Gale, Southampton, UK
George W. Gokel, St Louis, USA
Craig Hawker, Santa Barbara, USA
Andrew B. Holmes, Melbourne, Australia
Amir Hoveyda, Boston, USA
Kazuyuki Kuroda, Tokyo, Japan

Jérôme Lacour, Geneva, Switzerland
David MacMillan, Pasadena, USA
E. W. 'Bert' Meijer, Eindhoven, The Netherlands
Jason Micklefield, Manchester, UK
Achim Müller, Bielefeld, Germany
Catherine Murphy, South Carolina, USA
Atsuhiko Osuka, Kyoto, Japan
Ian Paterson, Cambridge, UK
Maurizio Prato, Trieste, Italy
Christopher A. Reed, Riverside, USA
Robin Rogers, Alabama, USA
Michael Sailor, San Diego, USA
Jonathan W. Steed, Durham, UK
Carsten Tschierske, Halle, Germany
Herbert Waldmann, Dortmund, Germany
Henry N. C. Wong, Hong Kong, PR China

Advertisement sales: Tel +44 (0) 1223 432246; Fax +44 (0) 1223 426017; E-mail advertising@rsc.org

☞ The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper).

Royal Society of Chemistry: Registered Charity No. 207890.

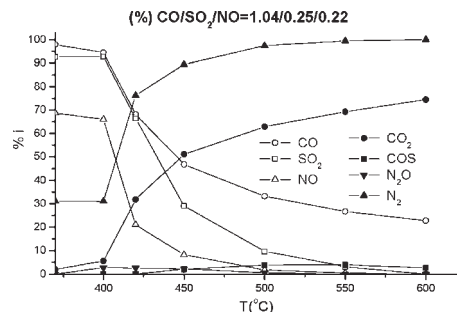
Authors may reproduce/republish portions of their published contribution without seeking permission from the RSC, provided that any such republication is accompanied by an acknowledgement in the form: (Original Citation)–Reproduced by permission of The Royal Society of Chemistry.

1268

Synthesis of highly loaded Cu/Ce mesoporous silica. Active catalyst for the simultaneous reduction of SO₂ and NO with CO

Constantinos C. Pantazis* and Philippos J. Pomonis

Highly loaded (15 wt.%) Cu/Ce mesoporous silica with high thermal stability and metal dispersion. This catalytic system was the first bimetallic mesoporous silica successfully tested for the simultaneous reduction of SO₂ and NO with CO.

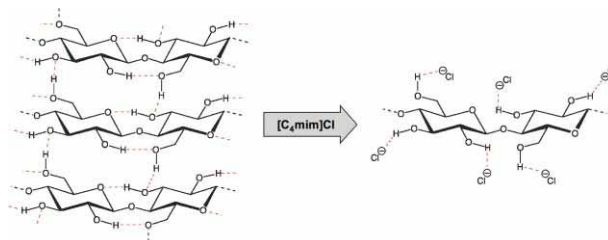


1271

Mechanism of cellulose dissolution in the ionic liquid 1-*n*-butyl-3-methylimidazolium chloride: a ¹³C and ^{35/37}Cl NMR relaxation study on model systems

Richard C. Remsing, Richard P. Swatloski, Robin D. Rogers* and Guillermo Moyna*

¹³C and ^{35/37}Cl NMR relaxation measurements on several model systems demonstrate that the solvation of cellulose by the ionic liquid (IL) 1-*n*-butyl-3-methylimidazolium chloride ([C₄mim]Cl) involves hydrogen-bonding between the carbohydrate hydroxyl protons and the IL chloride ions in a 1 : 1 stoichiometry.

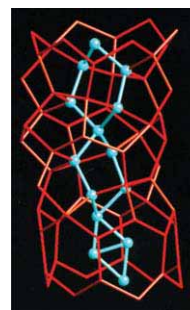


1274

Structures and phase transition of multi-layered water nanotube confined to nanochannels

Makoto Tadokoro,* Syoko Fukui, Tadanori Kitajima, Yuki Nagao, Shin'ichi Ishimaru, Hiroshi Kitagawa, Kiyoshi Isobe and Kazuhiro Nakasuji

A huge water nano-cluster (water nano-tube) stabilized by a molecular porous crystal has a phase transition between condensation and fusion of water molecules inside the channels.

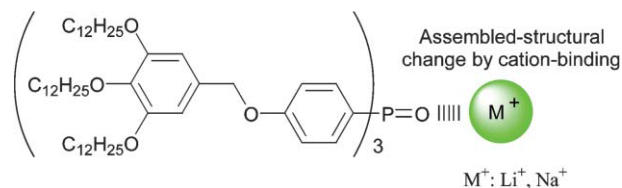


1277

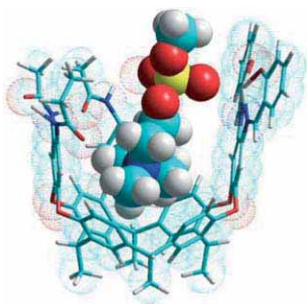
A columnar liquid crystal based on triphenylphosphine oxide—its structural changes upon interaction with alkaline metal cations

Tsukasa Hatano and Takashi Kato*

A triphenylphosphine oxide (TPPO) compound bearing 3,4,5-tridodecyloxybenzyloxy moieties exhibits a columnar liquid crystalline phase, and by changing its self-assembled structure, is responsive to alkaline metal cations due to cation–phosphine oxide interactions.



1280

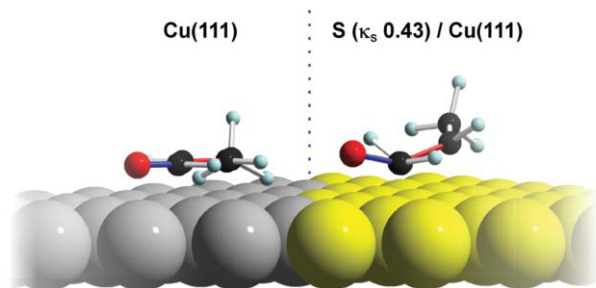


A synthetic receptor for phosphocholine esters

Felix H. Zelder, Riccardo Salvio and Julius Rebek Jr.*

A bifunctional Zn-salen modified cavitand, reminiscent of the enzyme phospholipase C, shows high efficiency and synergic effect in the binding of the phospholipid DOPC.

1283

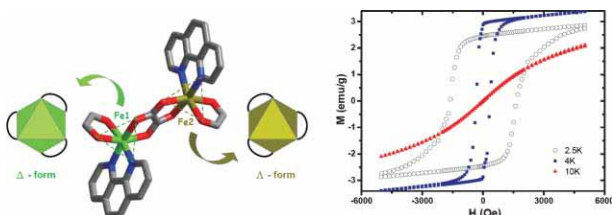


Sulfur, normally a poison, strongly promotes chemoselective catalytic hydrogenation: stereochemistry and reactivity of crotonaldehyde on clean and S-modified Cu(111)

May E. Chiu, Georgios Kyriakou, Federico J. Williams, David J. Watson, Mintcho S. Tikhov and Richard M. Lambert*

Sulfur adatoms strongly activate the otherwise inert Cu(111) surface towards chemoselective hydrogenation of crotonaldehyde by electronically perturbing and strongly tilting the reactant.

1286

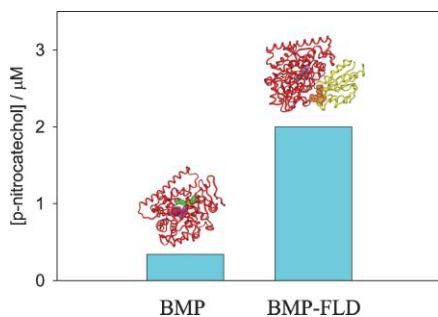


A coordination π - π framework exhibits spontaneous magnetization

Lu-Lin Li, Kuan-Jiuh Lin,* Chin-Jun Ho, Chia-Pin Sun and Hung-Duen Yang*

A π - π scaffolding framework comprising alternating Δ - and Λ -iron(II) chiral building units, $[\text{Fe}^{\text{II}}(\Delta)\text{Fe}^{\text{II}}(\Lambda)(\text{ox})_2(\text{phen})_2]_n$, reveals spontaneous magnetization that gives rise to pronounced hysteresis loops below 10 K.

1289



Improving catalytic properties of P450 BM3 haem domain electrodes by molecular Lego

Andrea Fantuzzi, Yergalem T. Meharena, Paul B. Briscoe, Carlo Sassone, Beatrice Borgia and Gianfranco Gilardi*

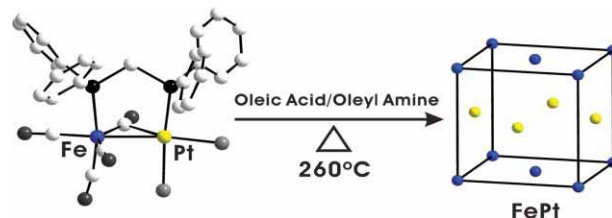
The communication shows how the catalytic properties of cytochrome P450 BM3 immobilised onto an electrode surface are improved by means of the molecular Lego approach. The P450 activity is measured in terms of the amount of *p*-nitrocatechol product formed. When the P450 catalytic module is linked to flavodoxin a 6-fold improvement is demonstrated.

1292

Growth of FePt nanocrystals by a single bimetallic precursor [(CO)₃Fe(μ-dppm)(μ-CO)PtCl₂]

Hyon Min Song, Jung Hoon Hong, Yong Bok Lee, Wan Seop Kim, Youngmee Kim, Sung-Jin Kim and Nam Hwi Hur*

Face-centered tetragonal FePt nanoparticles were synthesized from the bimetallic compound (CO)₃Fe(μ-dppm)(μ-CO)PtCl₂. This process represents an important step toward the synthesis of ferromagnetic nanoparticles which serve as a high density magnetic media matrix.

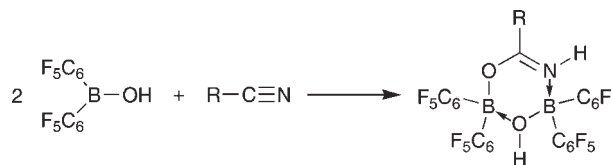


1295

Lewis and Brønsted multifunctionality: an unusual heterocycle from the reaction of bis(pentafluorophenyl)borinic acid with nitriles

George J. P. Britovsek,* Juri Ugolotti, Patricia Hunt and Andrew J. P. White

The combination of Lewis and Brønsted acidity as well as Lewis basicity in (C₆F₅)₂BOH results in a remarkable reactivity towards organonitriles to give novel heterocyclic compounds containing a BOBOCN ring.

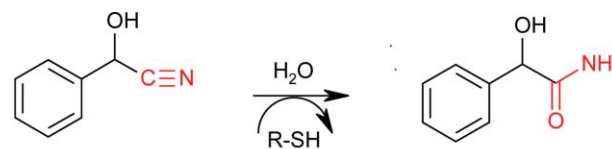


1298

Enzyme stabilizer DTT catalyzes nitrilase analogue hydrolysis of nitriles

Margit Winkler, Anton Glieder and Norbert Klemper*

Amides are the dominating products in some nitrilase catalyzed conversions of α-activated nitriles. Unexpectedly this hydrolytic reaction is also catalyzed by 1,4-dithio-DL-threitol (DTT), a standard antioxidizing enzyme stabilizer.



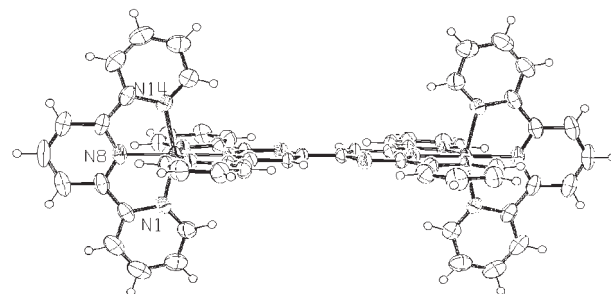
R = Nitrilase or 1,4-Dithio-DL-threitol (DTT)

1301

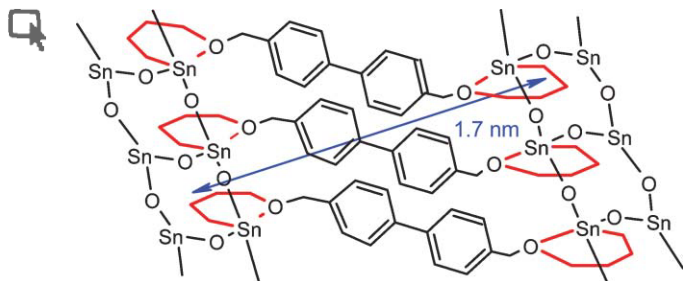
Bridging ligand planarity as a route to long-lived, near infrared emitting dinuclear ruthenium(II) complexes

Matthew I. J. Polson, Frédérique Loiseau, Sebastiano Campagna* and Garry S. Hanan*

The solid-state structure, redox behaviour and photophysical properties of a long-lived, near infrared emitting dinuclear ruthenium(II) complex are reported.



1304

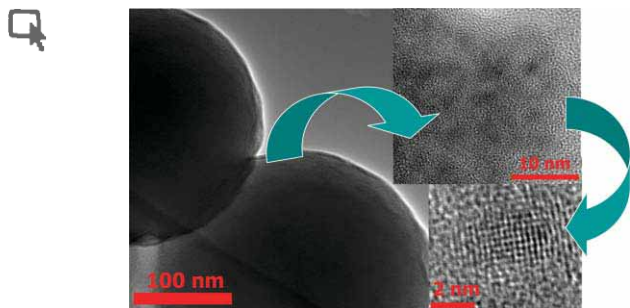


A doubly folded spacer in a self-assembled hybrid material

Hicham Elhamzaoui, Bernard Jousseume,*
Thierry Toupance, Cécile Zakri, Monique Biesemans,
Rudolph Willem and Hassan Allouchi

The hydrolysis of a bridged α,ω -bis(trialkynylstannylated) compound leads to a hybrid material ordered by self-assembly where the spacer forms two six-membered [1,2]oxastanninane rings by intramolecular coordination.

1307

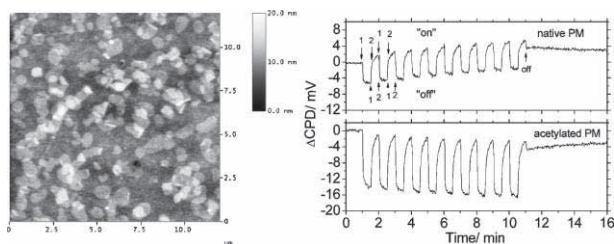


TEMPO-mediated, room temperature synthesis of pure CoO nanoparticles

Anna Lagunas, Antoni Mairata i Payeras, Ciril Jimeno and Miquel A. Pericàs*

Monodisperse CoO nanoparticles (*ca.* 3.0 nm diameter) can be prepared at room temperature by TEMPO-mediated decarbonylation of dicobalt octacarbonyl. Controlled aggregation of the nanoparticles can be used for the preparation of hybrid materials.

1310

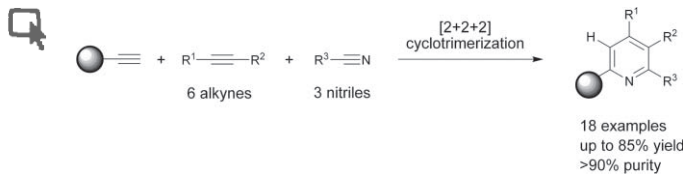


Chemically induced enhancement of the opto-electronic response of *Halobacterium* purple membrane monolayer

Yongdong Jin, Noga Friedman, David Cahen* and Mordechai Sheves*

Monolayers of the bacteriorhodopsin-containing purple membrane (PM) on a substrate show a significantly enhanced photovoltage after PM acetylation, probably due to an improved orientation of the PM on the surface.

1313



Pyridines *via* solid-supported [2 + 2 + 2] cyclotrimerization

Ramesh S. Senaiar, Douglas D. Young and Alexander Deiters*

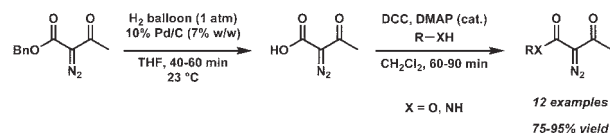
The cobalt-catalyzed [2 + 2 + 2] cyclotrimerization of two alkynes and a nitrile was conducted on a solid-support. This represents the first selective crossed pyridine formation using two different alkynes.

1316

2-Diazoacetoacetic acid, an efficient and convenient reagent for the synthesis of α -diazo- β -ketoesters

Michael E. Meyer, Eric M. Ferreira and Brian M. Stoltz*

The formation of various α -diazo acetoacetic esters can be obtained in a single transformation with good to excellent yields using readily available 2-diazoacetoacetic acid.

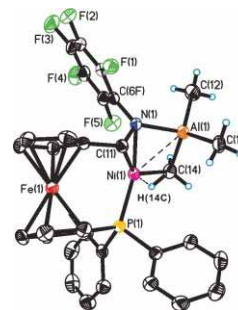


1319

A structurally characterized Ni–Al methyl-bridged complex with catalytic ethylene oligomerization activity

Zhiqiang Weng, Shihui Teo, Lip Lin Koh and T. S. Andy Hor*

A bimetallic Ni–Al (2.5087(15) Å) complex $[\eta\text{-C}_5\text{H}_4\text{CH}=\text{N}(\text{C}_6\text{F}_5)]\text{Fe}[\eta\text{-C}_5\text{H}_4\text{PPh}_2]\text{Ni}(\text{AlMe}_3)$ that mimics the active intermediate in the “Ziegler Nickel Effect” has been isolated and crystallographically established. It is active towards ethylene oligomerization under moderate conditions.

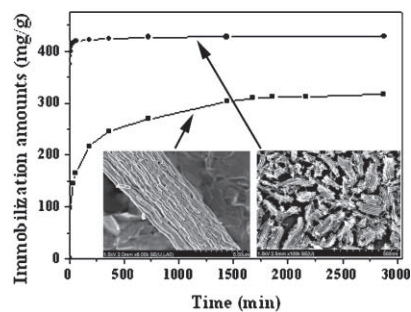


1322

Ultrafast enzyme immobilization over large-pore nanoscale mesoporous silica particles

Junming Sun, He Zhang, Ruijun Tian, Ding Ma,* Xinhe Bao,* Dang Sheng Su and Hanfa Zou

Nanoscale silica particles with ordered large mesopores (~ 13 nm) have an unusual ultrafast biomolecule adsorption speed, and the amount of enzyme that can be immobilized is larger than that of conventional mesoporous silica, which has potential applications in the fast separation of biomolecules.



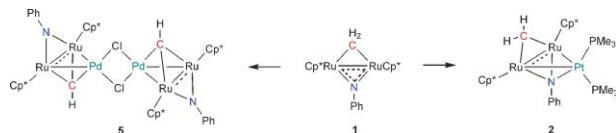
1325

Selective catalytic activity of ball-shaped Pd@MCM-48 nanocatalysts

Hee-Yoon Lee,* Suyoung Ryu, Hongkyu Kang, Young-wook Jun and Jinwoo Cheon*



1328

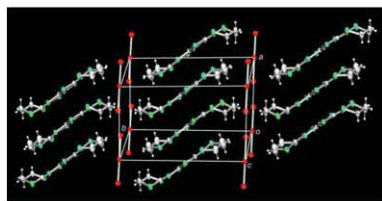


Synthesis of Ru–Pt and Ru–Pd mixed-metal imido clusters from a diruthenium imido-methylene scaffold [(Cp*Ru)₂(μ₂-NPh)(μ₂-CH₂)]

Shin Takemoto, Hidenobu Morita, Ken Kamikawa and Hiroyuki Matsuzaka*

The diruthenium complex **1** serves as a bifunctional scaffold for cluster synthesis, producing a μ₃-imido Ru₂Pt cluster on treatment with a Pt(0) complex and a μ₃-methylidyne Ru₄Pd₂ cluster with a Pd(II) complex.

1331



Pressure effect on the electrical conductivity and superconductivity of β-(BDA-TTP)₂I₃

Jun-ichi Yamada,* Kazuya Fujimoto, Hiroki Akutsu, Shin'ichi Nakatsuji, Akira Miyazaki, Masashi Aimitsu, Satoshi Kudo, Toshiaki Enoki and Koichi Kikuchi

Pressure application of up to 14 kbar dramatically changes the electrical conductivity behaviour of β-(BDA-TTP)₂I₃ and, simultaneously, induces superconductivity with an onset temperature of around 10 K.

1334

Hisahiro Hagiwara,* Yoshitaka Sugawara, Takashi Hoshi and Toshio Suzuki

Sustainable Mizoroki–Heck reaction in water: remarkably high activity of Pd(OAc)₂ immobilized on reversed phase silica gel with the aid of an ionic liquid

AUTHOR INDEX

- Aimatsu, Masashi, 1331
Akutsu, Hiroki, 1331
Allouchi, Hassan, 1304
Azzellini, Gianluca C., 1265
Bao, Xinhé, 1322
Biesemans, Monique, 1304
Borgia, Beatrice, 1289
Briscoe, Paul B., 1289
Britovsek, George J. P., 1295
Cahen, David, 1310
Campagna, Sebastiano, 1301
Campeau, Louis-Charles, 1253
Cheon, Jinwoo, 1325
Chiu, May E., 1283
Deiters, Alexander, 1313
Echegoyen, Luis, 1265
Elhamzaoui, Hicham, 1304
Elliott, Bevan, 1265
Enoki, Toshiaki, 1331
Fagnou, Keith, 1253
Fantuzzi, Andrea, 1289
Fernández-Lázaro, Fernando, 1265
Ferreira, Eric M., 1316
Friedman, Noga, 1310
Fujimoto, Kazuya, 1331
Fukui, Syoko, 1274
Gilardi, Gianfranco, 1289
Glieder, Anton, 1298
Hanan, Garry S., 1301
Hatano, Tsukasa, 1277
Ho, Chin-Jun, 1286
Hong, Jung Hoon, 1292
Hor, T. S. Andy, 1319
Hunt, Patricia, 1295
Hur, Nam Hwi, 1292
Ishimaru, Shin'ichi, 1274
Isobe, Kiyoshi, 1274
Jimeno, Ciril, 1307
Jin, Yongdong, 1310
Jousseau, Bernard, 1304
Jun, Young-wook, 1325
Kamikawa, Ken, 1328
Kang, Hongkyu, 1325
Kato, Takashi, 1277
Kikuchi, Koichi, 1331
Kim, Sung-Jin, 1292
Kim, Wan Seop, 1292
Kim, Youngmee, 1292
Kitagawa, Hiroshi, 1274
Kitajima, Tadanori, 1274
Klempier, Norbert, 1298
Koh, Lip Lin, 1319
Kudo, Satoshi, 1331
Kyriakou, Georgios, 1283
Lagunas, Anna, 1307
Lambert, Richard M., 1283
Lee, Hee-Yoon, 1325
Lee, Yong Bok, 1292
Li, Lu-Lin, 1286
Lin, Kuan-Jiuh, 1286
Loiseau, Frédérique, 1301
Ma, Ding, 1322
Mairata i Payeras, Antoni, 1307
Matsuzaka, Hiroyuki, 1328
Meharena, Yergalem T., 1289
Meyer, Michael E., 1316
Miyazaki, Akira, 1331
Morita, Hidenobu, 1328
Moyna, Guillermo, 1271
Nagao, Yuki, 1274
Nakasuji, Kazuhiro, 1274
Nakatsuji, Shin'ichi, 1331
Pantazis, Constantinos C., 1268
Pericàs, Miquel A., 1307
Polson, Matthew I. J., 1301
Pomonis, Philippos J., 1268
Rebek Jr., Julius, 1280
Remsing, Richard C., 1271
Rodríguez-Redondo, José L., 1265
Rogers, Robin D., 1271
Ryu, Suyoung, 1325
Salvio, Riccardo, 1280
Sassone, Carlo, 1289
Sastre-Santos, Ángela, 1265
Senaiar, Ramesh S., 1313
Sheves, Mordechai, 1310
Soares, Dilcelli, 1265
Song, Hyon Min, 1292
Stoltz, Brian M., 1316
Su, Dang Sheng, 1322
Sun, Chia-Pin, 1286
Sun, Junming, 1322
Swatloski, Richard P., 1271
Tadokoro, Makoto, 1274
Takemoto, Shin, 1328
Teo, Shihui, 1319
Tian, Ruijun, 1322
Tikhov, Mintcho S., 1283
Toupance, Thierry, 1304
Ugolotti, Juri, 1295
Watson, David J., 1283
Weng, Zhiqiang, 1319
White, Andrew J. P., 1295
Willem, Rudolph, 1304
Williams, Federico J., 1283
Winkler, Margit, 1298
Yamada, Jun-ichi, 1331
Yang, Hung-Duen, 1286
Young, Douglas D., 1313
Zakri, Cécile, 1304
Zelder, Felix H., 1280
Zhang, He, 1322
Zou, Hanfa, 1322

FREE E-MAIL ALERTS AND RSS FEEDS


Contents lists in advance of publication are available on the web *via* www.rsc.org/chemcomm – or take advantage of our free e-mail alerting service (www.rsc.org/ej_alert) to receive notification each time a new list becomes available.

RSS Try our RSS feeds for up-to-the-minute news of the latest research. By setting up RSS feeds, preferably using feed reader software, you can be alerted to the latest Advance Articles published on the RSC web site. Visit www.rsc.org/publishing/technology/rss.asp for details.

ADVANCE ARTICLES AND ELECTRONIC JOURNAL

Free site-wide access to Advance Articles and electronic form of this journal is provided with a full-rate institutional subscription. See www.rsc.org/ejs for more information.

* Indicates the author for correspondence: see article for details.

 Electronic supplementary information (ESI) is available *via* the online article (see <http://www.rsc.org/esi> for general information about ESI).



A high-impact chemical biology journal with a particular focus at the interface between chemistry and the -omic sciences and systems biology.

See for yourself – examples of papers are listed below.

For further details and to submit your best work, visit www.molecularbiosystems.org

New and recent articles:

Reviews and Highlights

Establishment of the platform for reverse chemical genetics targeting novel protein–protein interactions

Hisashi Koga

Molecular mechanisms of ethylene signaling in *Arabidopsis*

Larissa M. Benavente and Jose M. Alonso

Papers and Methods

The comparative metabonomics of age-related changes in the urinary composition of male Wistar-derived and Zucker (fa/fa) obese rats

R. E. Williams, E. M. Lenz, M. Rantalainen and I. D. Wilson

Conformational chemistry of surface-attached calmodulin detected by acoustic shear wave propagation

Xiaomeng Wang, Jonathan S. Ellis, Emma-Louise Lyle, Priyanka Sundaram and Michael Thompson

Opinion

Small molecules in an RNAi world

Ulrike S. Eggert, Christine M. Field and Timothy J. Mitchison

Immunomodulatory effects of *Pseudomonas aeruginosa* quorum sensing small molecule probes on mammalian macrophages

Gemma L. Thomas, Christine M. Böhner, Hannah E. Williams, Catherine M. Walsh, Mark Ladlow, Martin Welch, Clare E. Bryant and David R. Spring

Simple SNP typing assay using a base-discriminating fluorescent probe

Akimitsu Okamoto, Kazuki Tainaka, Yuji Ochi, Keiichiro Kanatani and Isao Saito