

ChemComm

Chemical Communications

www.rsc.org/chemcomm

RSC Publishing is a not-for-profit publisher and a division of the Royal Society of Chemistry. Any surplus made is used to support charitable activities aimed at advancing the chemical sciences. Full details are available from www.rsc.org

IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS (6) 533–640 (2007)



Cover

See Malcolm A. Halcrow *et al.*, page 577. The consistent cooperativity shown by spin-crossover compounds adopting this crystal packing motif makes it an ideal model system for the crystal engineering of functional materials. Image reproduced by permission of Ruth Pritchard, Colin A. Kilner and Malcolm A. Halcrow, from *Chem. Commun.*, 2007, 577.



Inside cover

See Takayuki Kawashima *et al.*, page 559. The most intense fluorescent azobenzene by taking advantage of strong N–B interaction and electron-withdrawing groups on the boron. Image reproduced by permission of Junro Yoshino, Naokazu Kano and Takayuki Kawashima, from *Chem. Commun.*, 2007, 559.

CHEMICAL TECHNOLOGY

T9

Chemical Technology highlights the latest applications and technological aspects of research across the chemical sciences.

Chemical Technology

February 2007/Volume 4/Issue 2

www.rsc.org/chemicaltechnology

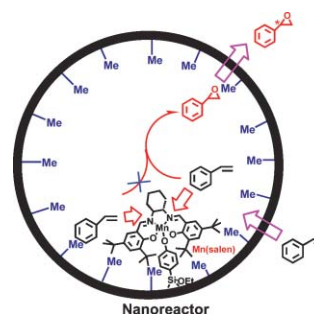
FEATURE ARTICLE

547

Chiral catalysis in nanopores of mesoporous materials

Can Li,* Huidong Zhang, Dongmei Jiang and Qihua Yang

This article reviews the recent progress made in asymmetric catalysis in the nanopores of mesoporous materials and periodic mesoporous organosilicas (PMOs). Some examples of chiral catalysts within the nanopores show improved catalytic performance compared to homogeneous catalysts. Factors including the confinement effect, the properties of the linkages and the microenvironment in nanopores, which affect the activity and enantioselectivity of the asymmetric catalysis in nanopores, are discussed.



EDITORIAL STAFF

Editor

Sarah Thomas

Deputy editor

Kathryn Sear

Assistant editors

James Mitchell Crow, Nicola Nugent, Alison Stoddart, Katherine Vickers, Jenna Wilson

Publishing assistants

Jackie Cockrill, Jayne Gough, Rachel Hegarty

Team leader, serials production

Helen Saxton

Technical editors

Sue Askey, Celia Clarke, Nicola Convine, Alan Holder, Laura Howes, Sandra Jones, David Parker, Ken Wilkinson, Roger Young

Administration coordinator

Sonya Spring

Editorial secretaries

Donna Fordham, Jill Segev, Julie Thompson

Publisher

Emma Wilson

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

2007 Annual (print + electronic) subscription price: £1832; US\$3462. 2007 Annual (electronic) subscription price: £1649; US\$3116. 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, 2007. 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

Associate Editors

P. Andrew Evans, Liverpool, UK
andrew.evans@liverpool.ac.uk
Jonathan L. Sessler, Austin, USA
chemcommun@cm.utexas.edu
T. Don Tilley, Berkeley, USA
chemcomm@berkeley.edu

Scientific Editors

Alois Fürstner, Mülheim, Germany
fuerstner@mpi-muelheim.mpg.de
Mir Wais Hosseini, Strasbourg, France
hosseini@chimie.u-strasbg.fr

Members

Shankar Balasubramanian, Cambridge, UK
sb10031@cam.ac.uk
Penny Brothers, Auckland, New Zealand
p.brothers@auckland.ac.nz

Jillian M. Buriak, Edmonton, Canada
jburiak@ualberta.ca

Ben L. Feringa, Groningen, The Netherlands
feringa@chem.rug.nl

David Haddleton, Warwick, UK
D.M.Haddleton@warwick.ac.uk
Peter Kündig, Geneva, Switzerland
Peter.Kundig@chiorg.unige.ch

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

Keiji Maruoka, Kyoto, Japan
maruoka@kuchem.kyoto-u.ac.jp
Ryong Ryoo, Taejeon, Korea
rryoo@kaist.ac.kr

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

Nicholas J. Turner, Manchester, UK
nicholas.turner@manchester.ac.uk

EDITORIAL ADVISORY BOARD

Varinder Aggarwal, Bristol, UK
Frank Allen, CCDC, Cambridge, UK
Jerry L. Atwood, Columbia, USA
Amit Basak, Kharagpur, India
Dario Braga, Bologna, Italy
Xiao-Ming Chen, Guangzhou, China
Derrick Clive, Alberta, Canada
Marcetta Darensbourg, College Station, USA
Scott E. Denmark, Urbana, USA
Shaojun Dong, Changchun, China
Chris Easton, Canberra, Australia
Gregory C. Fu, Cambridge, USA
Tohru Fukuyama, Tokyo, Japan
Lutz Gade, Heidelberg, Germany
Philip Gale, Southampton, UK
George W. Gokel, St Louis, USA
Trevor Hambley, Sydney, Australia
Craig Hawker, Santa Barbara, USA
Andrew B. Holmes, Melbourne, Australia
Amir Hoveyda, Boston, USA
Steven M. Howdle, Nottingham, UK
Taeghwan Hyeon, Seoul, Korea
Biao Jiang, Shanghai, China
Karl Anker Jørgensen, Aarhus, Denmark
Kimoan Kim, Pohang, Korea

Susumu Kitagawa, Kyoto, Japan
Shu Kobayashi, Tokyo, Japan
Jérôme Lacour, Geneva, Switzerland
Teck-Peng Loh, Singapore
Tien-Yau Luh, Taipei, Taiwan
Doug MacFarlane, Monash, Australia
David MacMillan, Princeton, USA
Seth Marder, Atlanta, USA
Ilan Marek, Haifa, Israel
E. W. 'Bert' Meijer, Eindhoven, The Netherlands
Achim Müller, Bielefeld, Germany
Catherine Murphy, South Carolina, USA
Atsuhiko Osuka, Kyoto, Japan
Ian Paterson, Cambridge, UK
Maurizio Prato, Trieste, Italy
C. N. R. Rao, Bangalore, India
Christopher A. Reed, Riverside, USA
Robin Rogers, Alabama, USA
Michael Sailor, San Diego, USA
Jonathan W. Steed, Durham, UK
Zhong-Qun Tian, Xiamen, China
Carsten Tschierske, Halle, Germany
Herbert Waldmann, Dortmund, Germany
Henry N. C. Wong, Hong Kong, China
Eiji Yashima, Nagoya, Japan

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.

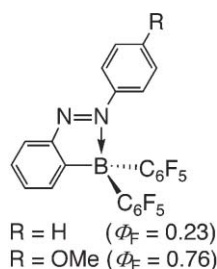
Authors may reproduce/republish portions of their published contribution without seeking permission from the RSC, provided that any such republication is accompanied by an acknowledgement in the form: (Original Citation)–Reproduced by permission of The Royal Society of Chemistry.

559

Synthesis of the most intensely fluorescent azobenzene by utilizing the B–N interaction

Junro Yoshino, Naokazu Kano and Takayuki Kawashima*

A boron-substituted azobenzene, (*E*)-[2-(4-methoxyphenylazo)phenyl]bis(pentafluorophenyl)borane, presented the most intense fluorescence among the azobenzene derivatives.

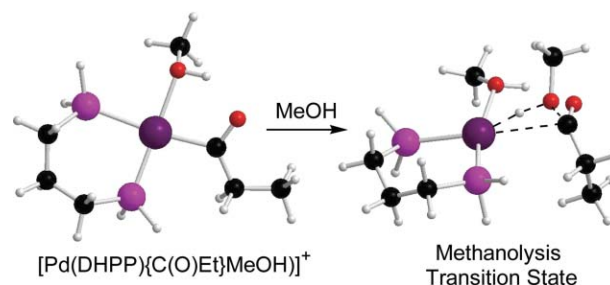


562

A computational study of the methanolysis of palladium–acyl bonds

Steven M. A. Donald, Stuart A. Macgregor,* Volker Settels, David J. Cole-Hamilton and Graham R. Eastham

Density functional calculations suggest that intermolecular attack of methanol may be important in the methanolysis of simple Pd–acyl systems and that the energetics of this process are strongly dependent on the metal coordination environment.

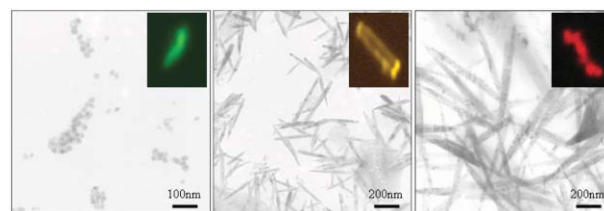


565

Synthesis and characterization of positively capped CdTe quantum wires that exhibit strong luminescence in aqueous media

Vito Sgobba,* Christian Schulz-Drost and Dirk M. Guldi*

The novelty of the current work lies in the versatile synthesis of highly luminescent water-soluble CdTe quantum rods (QR) which are the first known water-soluble QR carrying positively charged stabilizer.

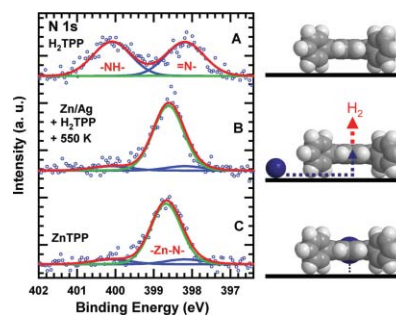


568

Tetraphenylporphyrin picks up zinc atoms from a silver surface

Andreas Kretschmann, Marie-Madeleine Walz, Ken Flechtner, Hans-Peter Steinrück and J. Michael Gottfried*

Adsorbed *meso*-tetraphenylporphyrin molecules can coordinate zinc atoms that are pre-deposited on an Ag(111) surface. This reaction is the first example of an oxidative dissolution of a metal by a large organic ligand under ultrahigh vacuum conditions.



CALL FOR PAPERS

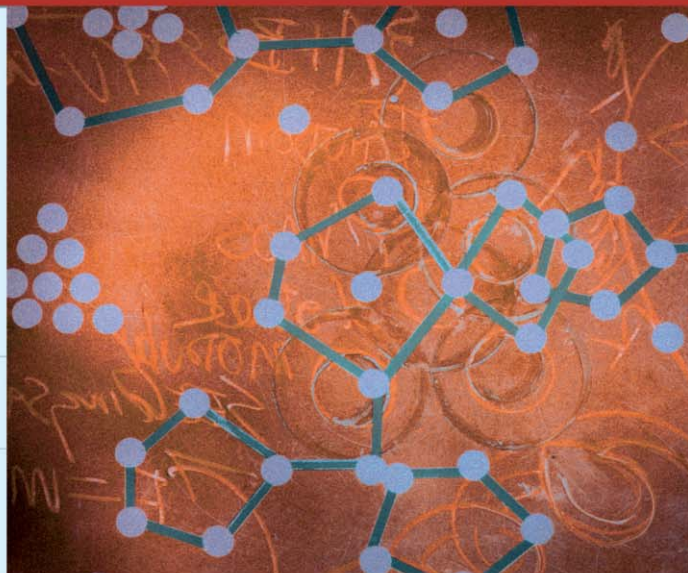
Abstracts due February 28, 2007

11th Annual Green Chemistry & Engineering Conference

› *From Small Steps to Giant Leaps —
Breakthrough Innovations for Sustainability*

June 25–28, 2007

WASHINGTON, DC



Submit Your Abstract Now...

Abstracts for both oral and poster presentations are now being accepted. The deadline is February 28, 2007. To learn more, and submit your abstract, please visit:

www.GCandE.org



Image reproduced by permission of Joan Brennecke *Green Chem.* 2006, 8(2)



Green Chemistry

Cutting-edge research for a greener sustainable future

Publishing the latest research that reduces the environmental impact of the chemical enterprise by developing alternative sustainable technologies.

- The **only** research journal that deals exclusively with green chemistry and related issues
- Impact factor: 3.255
- Rapid publication, ensuring speedy access to the latest information
- Full range of article types: communications, papers and reviews

RSCPublishing

www.rsc.org/greenchem

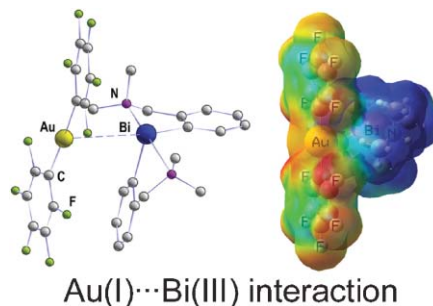
22030563

571

Experimental and theoretical evidence of the first Au(I)⋯Bi(III) interaction

Eduardo J. Fernández,* Antonio Laguna,*
José M. López-de-Luzuriaga, Miguel Monge, Mihai Nema,
M. Elena Olmos, Javier Pérez and Cristian Silvestru

[Au(C₆F₅)₂][Bi(C₆H₄CH₂NMe₂-2)₂] displays the first example of an interaction between Au(I) and Bi(III). Calculations show the presence of a high ionic contribution and a dispersion type interaction.

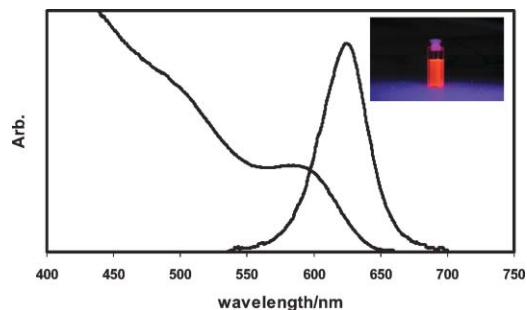


574

Ionic liquid passivated CdSe nanocrystals

Mark Green,* Paula Rahman and David Smyth-Boyle

The preparation of CdSe nanoparticles passivated with a phosphonium ionic liquid is described – the optics, structure and mode of surface coordination is reported.

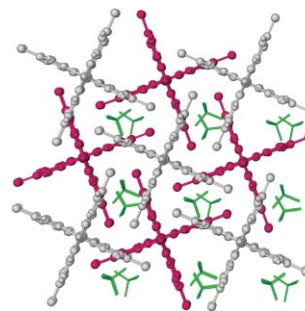


577

Iron(II) complexes with a terpyridine embrace packing motif show remarkably consistent cooperative spin-transitions

Ruth Pritchard, Colin A. Kilner and Malcolm A. Halcrow*

Six structurally related iron(II) complexes show remarkably similar abrupt thermal spin-transitions.

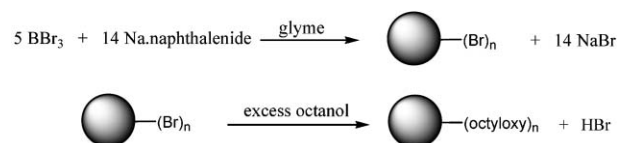


580

Room temperature synthesis of surface-functionalised boron nanoparticles

Alexandra L. Pickering, Christoph Mitterbauer,
Nigel D. Browning, Susan M. Kauzlarich* and
Philip P. Power*

Halogen capped boron nanoparticles have been synthesized by a simple route involving the reduction of boron bromide with sodium naphthalenide. The halogen capped species can be derivatized by reaction with alcohol to give alkoxy capped nanoparticles.





years of
publishing

Organic & Biomolecular Chemistry ...

- now one of the leading journals in the field
- Impact Factor 2.55
- high exposure - top papers highlighted in the wider scientific press
- indexed in MEDLINE and other major databases
- short publication times, as low as 24 days from acceptance for papers, and 14 days for communications

OBC has achieved tremendous success since the first issue was published in January 2003. Can any other 'young' journal boast such highly cited papers, published quickly to such exacting standards?

... celebrating 5 years of publishing

RSC Publishing

www.rsc.org/obc

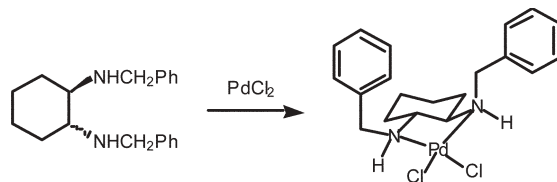
Registered Charity Number 207890

583

Highly selective *R,S*-coordination of non racemic (1*R*,2*R*)-(1,2-dialkyl)-1,2-diamine cyclohexane derivatives to palladium dichloride

Esfandiar Rafii, Benjamin Dassonneville and Andreas Heumann*

In the complexes obtained the C_2 symmetry of the diamine ligand is broken, and all atoms become nonequivalent in the NMR timescale. The structure has been characterized unambiguously by single-crystal X-ray diffraction.

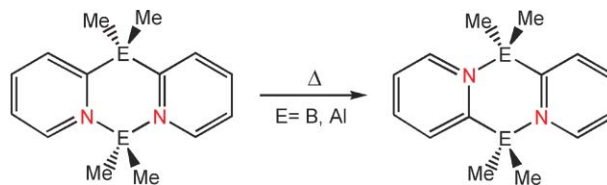


586

Pyridyl 'ring-flipping' in the dimers $[Me_2E(2-py)]_2$ (E = B, Al, Ga; 2-py = 2-pyridyl)

Felipe García, (the late) Alexander D. Hopkins, Richard A. Kowenicki, Mary McPartlin, Jared S. Silvia, Jeremy M. Rawson, Michael C. Rogers and Dominic S. Wright*

Simply heating a mixture of the *cis* and *trans* isomers of $[Me_2E(2-py)]_2$ (E = B, Al) gives exclusively the more thermodynamically stable, synthetically useful *trans* isomers via a ring-flipping process.

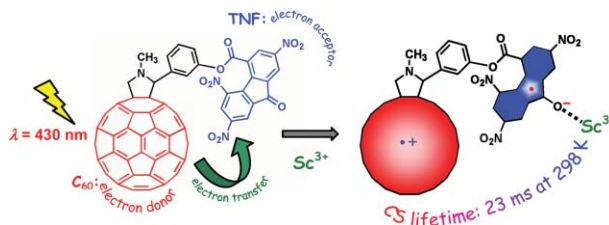


589

Fullerene acting as an electron donor in a donor-acceptor dyad to attain the long-lived charge-separated state by complexation with scandium ion

Kei Ohkubo, Javier Ortiz, Luis Martín-Gomis, Fernando Fernández-Lázaro, Ángela Sastre-Santos* and Shunichi Fukuzumi*

A long-lived charge-separated state of fullerene-trinitrofluorenone linked dyad is formed by photoinduced electron transfer from C_{60} to TNF in the presence of $Sc(OTf)_3$.

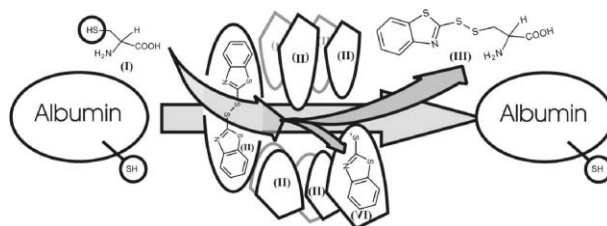


592

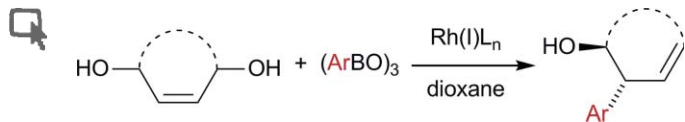
Solid state differentiation of plasma thiols using a centrifugally activated mercaptobenzothiazole disulfide exchange indicator

Samir Chahine, Callum Livingstone and James Davis*

A solid state filter material has been developed to allow the speciation and quantitative measurement of reduced low molecular weight (cysteine, glutathione) and macromolecular (albumin) thiols within plasma.



595

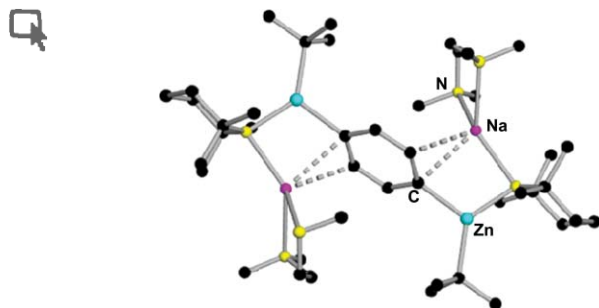


Rhodium-catalysed substitutive arylation of *cis*-allylic diols with arylboroxines

Tomoya Miura, Yusuke Takahashi and Masahiro Murakami*

Substitutive arylation of *cis*-allylic diols occurs upon treatment with arylboroxines in the presence of a rhodium(I) catalyst, and has been extended to asymmetric synthesis.

598

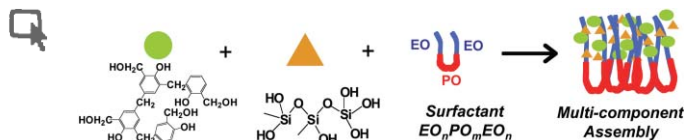


Dizincation and dimagnesiumation of benzene using alkali-metal-mediated metallation

David R. Armstrong, William Clegg, Sophie H. Dale, David V. Graham, Eva Hevia, Lorna M. Hogg, Gordon W. Honeyman, Alan R. Kennedy and Robert E. Mulvey*

Dimetallation of benzene, difficult to achieve even with highly reactive polar organolithium reagents, can be easily accomplished using the lower reactive and much less polar metal zinc when introduced as a synergic sodium TMP-zincate reagent.

601

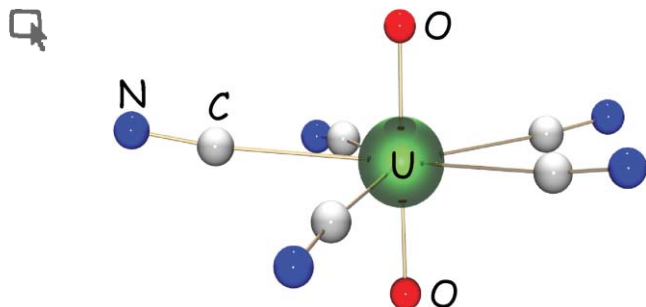


Mesoporous carbon/silica nanocomposite through multi-component assembly

Qingyuan Hu, Rong Kou, Jiebin Pang, Timothy L. Ward, Mei Cai, Zhengzhong Yang, Yunfeng Lu* and Jing Tang*

Ordered mesoporous carbon/silica nanocomposites were synthesised through a novel multi-component molecular assembly and show promising potential as corrosion-resisted electrocatalyst supports.

604



The first actinyl cyanide

Jean-Claude Berthet,* Pierre Thuéry and Michel Ephritikhine

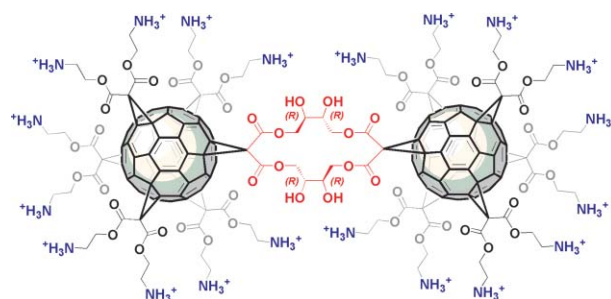
Reaction of NEt₄CN with UO₂(O₃SCF₃)₂ in anhydrous acetonitrile is a facile route to the first uranyl(VI) cyanide [NEt₄]₃[UO₂(CN)₅], which is a rare example of uranyl compound with U–C bonds. The geometrical parameters of the complex are compared with the values previously obtained by theoretical calculations.

607

A chiral dumbbell shaped bis(fullerene) oligoelectrolyte

Nikos Chronakis,* Uwe Hartnagel, Martin Braun and Andreas Hirsch*

The synthesis of the first water soluble icosacationic bis(fullerene) with a rigid and almost cylindrical shape is reported.

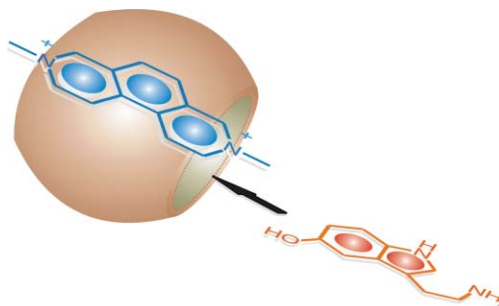


610

A new cucurbit[8]uril-based fluorescent receptor for indole derivatives

Yonghua Ling, Wei Wang and Angel E. Kaifer*

The fluorescent dication 2,7-dimethyldiazaphenanthrenium (DPT²⁺) forms a highly stable complex with cucurbit[8]uril and this binary complex can be used as a fluorescent detector for indole derivatives *via* charge transfer interactions.

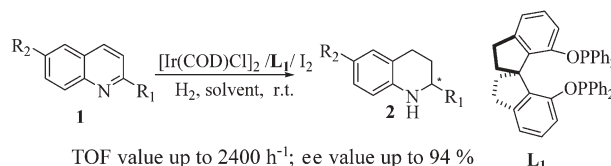


613

Asymmetric hydrogenation of quinolines with high substrate/catalyst ratio

Wei-Jun Tang, Shou-Fei Zhu, Li-Jin Xu,* Qi-Lin Zhou, Qing-Hua Fan,* Hai-Feng Zhou, Kimhung Lam and Albert S. C. Chan*

The chiral diphosphinite ligand derived from (*R*)-1,1'-spirobiindane-7,7'-diol has been found to be highly effective in the Ir-catalyzed asymmetric hydrogenation of quinolines with high substrate/catalyst ratio (up to 5000) and high enantioselectivity (up to 94% ee).

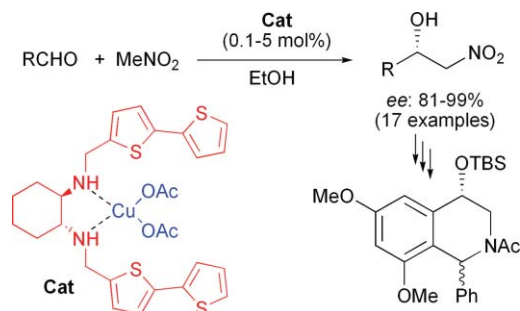


616

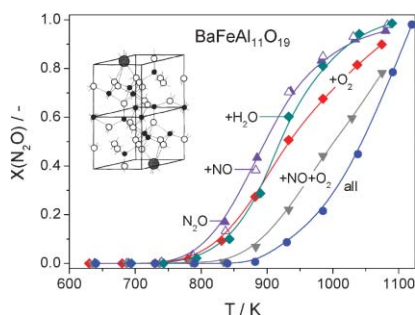
Highly enantioselective nitroaldol reaction catalyzed by new chiral copper complexes

Marco Bandini,* Fabio Piccinelli, Simona Tommasi, Achille Umami-Ronchi* and Caterina Ventrici

Low loading of catalyst, mild reaction parameters, high ee and remarkable scope on substrates are peculiar characteristics of DAT2-copper complex in the Henry condensation.



619

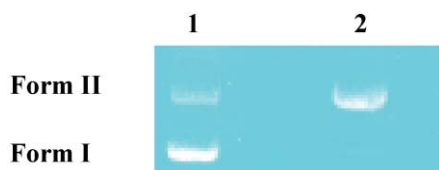


Metal-substituted hexaaluminates for high-temperature N₂O abatement

Javier Pérez-Ramírez* and Marta Santiago

Metal-substituted hexaaluminates are promising catalytic materials for high-temperature N₂O abatement in the chemical industry and in combustion processes.

622

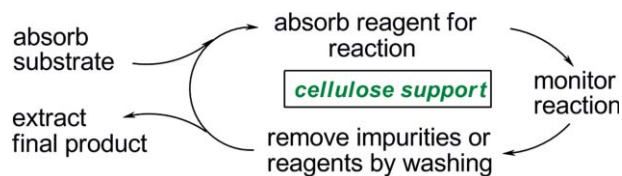


Chemistry of enediynyl azides: activation through a novel pathway

Amit Basak,* Sandip K. Roy, Sanket Das, Amrita B. Hazra, Subhash C. Ghosh and Shailendra Jha

The spontaneous activation of a nonaromatic enediynyl azide under ambient conditions has been demonstrated. The aromatic enediyne followed the expected cycloaddition with the alkene in the neighbouring arm to form a stable bridged bicyclic enediyne.

625

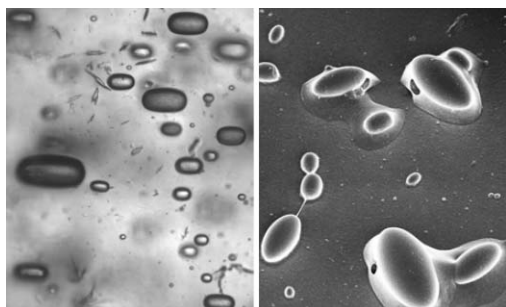


Carbon–carbon bond forming reactions with substrates absorbed non-covalently on a cellulose chromatography paper support

Jonathon Hacon, Amanda Morris, Michael J. Johnston, Stephen E. Shanahan, Mike D. Barker, Graham G. A. Inglis and Simon J. F. Macdonald*

After reaction and processing, the products can be extracted from the support in good purity. The technique is simple (developed by 16 year old school students) and cheap (100 reaction supports for 20 p).

628



A novel gel deformation technique for fabrication of ellipsoidal and discoidal polymeric microparticles

Anne-Claude Courbaron, Olivier J. Cayre and Vesselin N. Paunov*

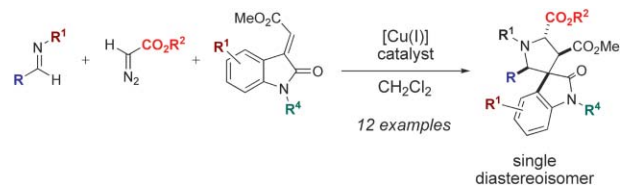
A simple fabrication technique for anisotropic particles of ellipsoidal/discoidal shape has been developed, based on stretching/compressing of oil-in-water emulsion templates embedded into an elastic aqueous gel.

631

A highly diastereoselective, catalytic three-component assembly reaction for the synthesis of spiropyrrolidinyloxindoles

Chris V. Galliford, James S. Martenson, Charlotte Stern and Karl A. Scheidt*

Spiropyrrolidinyloxindole compounds can be synthesized in moderate to excellent yield *via* a highly diastereoselective Cu(I)-catalysed three-component assembly reaction of an imine, diazo-compound and substituted olefin dipolarophile.



634

Versatile mesoporous carbonaceous materials for acid catalysis

Vitaly L. Budarin, James H. Clark,* Rafael Luque and Duncan J. Macquarrie

Starbon mesoporous materials were synthesized after pyrolysis of expanded starch and subsequently functionalised with sulfonated groups. Materials were found to be highly active and reusable in various acid catalysed reactions.



ADDITION AND CORRECTION

637

Chiral catalysis in nanopores of mesoporous materials


Can Li, Huidong Zhang, Dongmei Jiang and Qihua Yang

AUTHOR INDEX

- Armstrong, David R., 598
 Bandini, Marco, 616
 Barker, Mike D., 625
 Basak, Amit, 622
 Berthet, Jean-Claude, 604
 Braun, Martin, 607
 Browning, Nigel D., 580
 Budarin, Vitaly L., 634
 Cai, Mei, 601
 Cayre, Olivier J., 628
 Chahine, Samir, 592
 Chan, Albert S. C., 613
 Chronakis, Nikos, 607
 Clark, James H., 634
 Clegg, William, 598
 Cole-Hamilton, David J., 562
 Courbaron, Anne-Claude, 628
 Dale, Sophie H., 598
 Das, Sanket, 622
 Dassonneville, Benjamin, 583
 Davis, James, 592
 Donald, Steven M. A., 562
 Eastham, Graham R., 562
 Ephritikhine, Michel, 604
 Fan, Qing-Hua, 613
 Fernández, Eduardo J., 571
 Fernández-Lázaro, Fernando, 589
 Flechtner, Ken, 568
 Fukuzumi, Shunichi, 589
 Galliford, Chris V., 631
 García, Felipe, 586
 Ghosh, Subhash C., 622
 Gottfried, J. Michael, 568
 Graham, David V., 598
 Green, Mark, 574
 Guldi, Dirk M., 565
 Hacon, Jonathon, 625
 Halcrow, Malcolm A., 577
 Hartnagel, Uwe, 607
 Hazra, Amrita B., 622
 Heumann, Andreas, 583
 Hevia, Eva, 598
 Hirsch, Andreas, 607
 Hogg, Lorna M., 598
 Honeyman, Gordon W., 598
 Hopkins, Alexander D., 586
 Hu, Qingyuan, 601
 Inglis, Graham G. A., 625
 Jha, Shailendra, 622
 Jiang, Dongmei, 547
 Johnston, Michael J., 625
 Kaifer, Angel E., 610
 Kano, Naokazu, 559
 Kauzlarich, Susan M., 580
 Kawashima, Takayuki, 559
 Kennedy, Alan R., 598
 Kilner, Colin A., 577
 Kou, Rong, 601
 Kowenicki, Richard A., 586
 Kretschmann, Andreas, 568
 Laguna, Antonio, 571
 Lam, Kimhung, 613
 Li, Can, 547
 Ling, Yonghua, 610
 Livingstone, Callum, 592
 López-de-Luzuriaga, José M., 571
 Lu, Yunfeng, 601
 Luque, Rafael, 634
 Macdonald, Simon J. F., 625
 Macgregor, Stuart A., 562
 Macquarrie, Duncan J., 634
 Martenson, James S., 631
 Martín-Gomis, Luis, 589
 McPartlin, Mary, 586
 Mitterbauer, Christoph, 580
 Miura, Tomoya, 595
 Monge, Miguel, 571
 Morris, Amanda, 625
 Mulvey, Robert E., 598
 Murakami, Masahiro, 595
 Nema, Mihai, 571
 Ohkubo, Kei, 589
 Olmos, M. Elena, 571
 Ortiz, Javier, 589
 Pang, Jiebin, 601
 Paunov, Vesselin N., 628
 Pérez, Javier, 571
 Pérez-Ramírez, Javier, 619
 Piccinelli, Fabio, 616
 Pickering, Alexandra L., 580
 Power, Philip P., 580
 Pritchard, Ruth, 577
 Ráfii, Esfandiar, 583
 Rahman, Paula, 574
 Rawson, Jeremy M., 586
 Rogers, Michael C., 586
 Roy, Sandip K., 622
 Santiago, Marta, 619
 Sastre-Santos, Ángela, 589
 Scheidt, Karl A., 631
 Schulz-Drost, Christian, 565
 Settels, Volker, 562
 Sgobba, Vito, 565
 Shanahan, Stephen E., 625
 Silvestru, Cristian, 571
 Silvia, Jared S., 586
 Smyth-Boyle, David, 574
 Steinrück, Hans-Peter, 588
 Stern, Charlotte, 631
 Takahashi, Yusuke, 595
 Tang, Jing, 601
 Tang, Wei-Jun, 613
 Thuéry, Pierre, 604
 Tommasi, Simona, 616
 Umani-Ronchi, Achille, 616
 Ventrìci, Caterina, 616
 Walz, Marie-Madeleine, 568
 Wang, Wei, 610
 Ward, Timothy L., 601
 Wright, Dominic S., 586
 Xu, Li-Jin, 613
 Yang, Qihua, 547
 Yang, Zhengzhong, 601
 Yoshino, Junro, 559
 Zhang, Huidong, 547
 Zhou, Hai-Feng, 613
 Zhou, Qi-Lin, 613
 Zhu, Shou-Fei, 613

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.

 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).