**Cover (far left)**

Background: Hemlock (*Conium maculatum*) (picture William & Wilma Follette @ USDA-NRCS PLANTS Database / USDA NRCS, 1992. *Western wetland flora: Field office guide to plant species*. West Region, Sacramento, California, USA). *Foreground:* the structures of coniine, one of the hemlock alkaloids, and other compounds that can be obtained from chiral oxime ethers based on (*R*)/(*S*)-*O*-(1-phenylbutyl)hydroxylamine (ROPHy/SOPHy) (pp. 1341–1351).

Inside cover (left)

A silver(I) complex of a simple pyridyl ligand containing a urea derivative templated by nitrate, showing the slight tilt of the nitrate anion (pp. 1352–1353).



Chemical biology articles published in this journal also appear in the *Chemical Biology Virtual Journal*: www.rsc.org/chembiol

contents

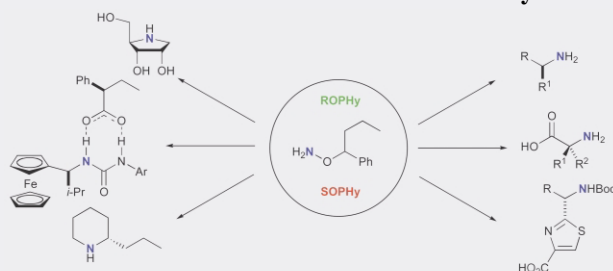
FEATURE ARTICLE

1341

Addition reactions of ROPHy/SOPHy oxime ethers: asymmetric synthesis of nitrogen containing compounds

Christopher J. Moody

Oxime ethers prepared from (*R*)- or (*S*)-*O*-(1-phenylbutyl)-hydroxylamine are versatile intermediates for the asymmetric synthesis of nitrogen containing compounds including amines, amino acids, building blocks of natural products, alkaloids, nitrogen heterocycles, and ferrocene based receptors.



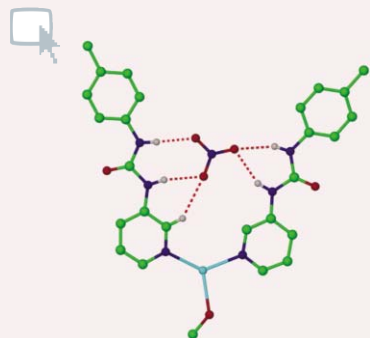
COMMUNICATIONS

1352

A modular, self-assembled, separated ion pair binding system

David R. Turner, Elinor C. Spencer, Judith A. K. Howard, Derek A. Tocher and Jonathan W. Steed*

Self-assembly of a discrete ion pair complex in solution and in the solid state with pyridyl–urea ligands requires the presence of both Ag^+ and NO_3^- . In the presence of other anions, dramatically different, infinite solid state systems are observed.

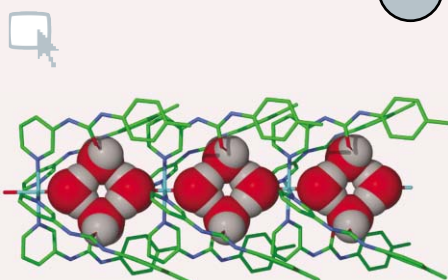


1354

Linear distortion of octahedral metal centres by multiple hydrogen bonds in modular ML_4 systems

David R. Turner, M. B. Hursthouse, M. E. Light and Jonathan W. Steed*

A pyridyl urea ligand “L” enclathrates a strongly hydrogen bonded water tetramer in solid state coordination polymers of type ML_4 ($\text{M} = \text{Co}, \text{Ni}, \text{Cu}, \text{Zn}$) which display remarkable distortions of the metal coordination environment due to the strength of the hydrogen bonding network.



Chemical Communications
<http://www.rsc.org/chemcomm>

EDITORIAL STAFF

Managing editor

Sarah Thomas

Deputy editor

Caroline Evans

Assistant editors

Sula Armstrong Lorna Jack

Meriel Dyche

Publishing assistants

Jayne Drake Lois Kershaw

Jayne Gough

Crystallographic data editor

Kirsty Anderson

Team Leader, serials production

Helen Saxton

Technical editors

Sue Askey Michael Smith

Sandra Jones Ziva Whitelock

Kathryn Lees Ken Wilkinson

Carole Nerney

Editorial secretary (production)

Sarah James

Publisher, journals and reviews

Adrian Kybett

Chemical Communications (print: ISSN 1359-7345; electronic: ISSN 1364-548X) is published 24 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, UK CB4 0WF. All orders accompanied by payment should be sent directly to Turpin Distribution Services Ltd, Blackhorse Road, Letchworth, Herts, UK SG6 1HN. 2004 Annual (print + electronic) subscription price: £1045; US\$1725. 2004 Annual (electronic) subscription price: £940; US\$1552. 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.

Advertisement sales: Tel +44 (0)1223 432243; Fax +44 (0)1223 426017; E-mail advertising@rsc.org

© The Royal Society of Chemistry, 2004. 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.

© 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.

EDITORIAL BOARD

Chairman

Roeland J. M. Nolte, Nijmegen, The Netherlands
E-mail: nolte@sci.kun.nl

Jerry L. Atwood, Columbia, MO, USA
E-mail: rsc.chemcomm@missouri.edu

Shankar Balasubramanian, Cambridge, UK
E-mail: sb10031@cam.ac.uk

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

Makoto Fujita, Tokyo, Japan

E-mail: mfujita@appchem.t.u-tokyo.ac.jp

Alois Fürstner, Mülheim, Germany

E-mail: fuerstner@mpi-muelheim.mpg.de

David Haddleton, Warwick, UK

E-mail: D.M.Haddleton@warwick.ac.uk

Donald Hilvert, Zurich, Switzerland

E-mail: hilvert@org.chem.ethz.ch

Mir Wais Hosseini, Strasbourg, France

E-mail: hosseini@chimie.u-strasbg.fr

Barbara Imperiali, Cambridge, MA, USA

E-mail: chemcomm@mit.edu

Dermot O'Hare, Oxford, UK

E-mail: chemcomm@chem.ox.ac.uk

Colin Raston, Perth, Australia

E-mail: clraston@chem.uwa.edu.au

Ian Rothwell, West Lafayette, IN, USA

E-mail: chemcomm@purdue.edu

Clément Sanchez, Paris, France

E-mail: clem@ccr.jussieu.fr

Ferdi Schüth, Mülheim, Germany

E-mail: schueth@mpi-muelheim.mpg.de

James D. White, Corvallis, OR, USA

E-mail: james.white@orst.edu

SCIENTIFIC EDITORS

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

Professor Dermot O'Hare

Inorganic Chemistry Laboratory

University of Oxford

Oxford, UK

E-mail: chemcomm@chem.ox.ac.uk

Professor Donald Hilvert

Laboratory of Organic Chemistry

ETH Zentrum, Zurich, Switzerland

E-mail: hilvert@org.chem.ethz.ch

Professor Mir Wais Hosseini

Lab de Chimie de Coordination Organique

Universite Louis Pasteur, Strasbourg, France

E-mail: hosseini@chimie.u-strasbg.fr

Professor Alois Fürstner

Max-Planck-Institut für Kohlenforschung

Mülheim/Ruhr, Germany

E-mail: fuerstner@mpi-muelheim.mpg.de

ASSOCIATE EDITORS

Manuscripts from the Americas should be submitted to the appropriate Associate Editor. Manuscripts from other regions should be submitted to the Cambridge Editorial Office. For information on how to submit your manuscript see <http://www.rsc.org/authors>

Manuscripts from the Americas SUPRAMOLECULAR

Professor Jerry L. Atwood

123 Chemistry Building

University of Missouri

Columbia, MO, USA

E-mail: rsc.chemcomm@missouri.edu

CHEMICAL BIOLOGY

Professor Barbara Imperiali

Department of Chemistry

Massachusetts Institute of Technology

Cambridge, MA, USA

E-mail: chemcomm@mit.edu

INORGANIC, ORGANOMETALLIC AND MATERIALS

Professor Ian Rothwell

Department of Chemistry

Purdue University,

West Lafayette, IN, USA

E-mail: chemcomm@purdue.edu

ORGANIC

Professor James D. White

Department of Chemistry

Oregon State University

Corvallis, OR, USA

E-mail: james.white@orst.edu

Manuscripts from all other regions

Dr Sarah Thomas

Chemical Communications

Royal Society of Chemistry

Thomas Graham House

Science Park, Milton Road

Cambridge, UK. CB4 0WF

Tel (+44) (0) 1223 420066

Fax (+44) (0) 1223 420247

E-mail: chemcomm@rsc.org

EDITORIAL ADVISORY BOARD

Takuzo Aida, Tokyo, Japan

Frank Allen, CCDC, Cambridge, UK

Dario Braga, Bologna, Italy

Duncan W. Bruce, Exeter, UK

Jillian M. Buriak, Edmonton, Canada

David H. G. Crout, Warwick, UK

Marecetta Darensbourg, College Station, TX, USA

Gautam R. Desiraju, Hyderabad, India

Pierre H. Dixneuf, Rennes, France

Gregory C. Fu, Cambridge, MA, USA

Tohru Fukuyama, Tokyo, Japan

Lutz Gade, Heidelberg, Germany

George W. Gokel, St Louis, MO, USA

Karl J. Hale, London, UK

Andrew B. Holmes, Cambridge, UK

Amir Hoveyda, Boston, MA, USA

Kazuyuki Kuroda, Tokyo, Japan

Jérôme Lacour, Geneva, Switzerland

E. W. 'Bert' Meijer, Eindhoven, The Netherlands

Albert I. Meyers, Fort Collins, CO, USA

Jason Micklefield, Manchester, UK

Achim Müller, Bielefeld, Germany

Maurizio Prato, Trieste, Italy

Richard J. Puddephatt, London, ON, Canada

Christopher A. Reed, Riverside, CA, USA

Jonathan Sessler, Austin, TX, USA

David C. Sherrington, Glasgow, UK

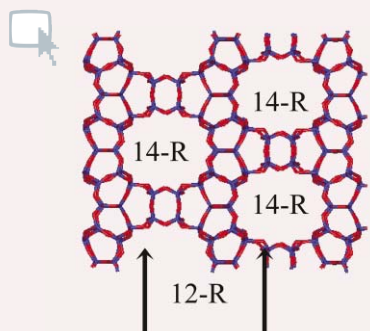
Jonathan W. Steed, Durham, UK

Herbert Waldmann, Dortmund, Germany

Henry N. C. Wong, Hong Kong, PR China

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 The Royal Society of Chemistry.

1356

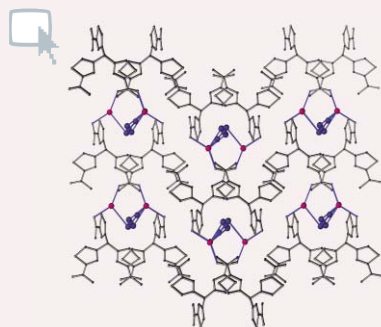


ITQ-15: The first ultralarge pore zeolite with a bi-directional pore system formed by intersecting 14- and 12-ring channels, and its catalytic implications

Avelino Corma,* Maria Jose Díaz-Cabañas, Fernando Rey, Stavros Nicolopoulos and Khalid Boulahya

The structure of ITQ-15 is formed by intersecting 14- and 12-ring channels. In its acid form it shows superior activity and selectivity for processing bulky reactants compared with existing 12- or 14-ring zeolites.

1358

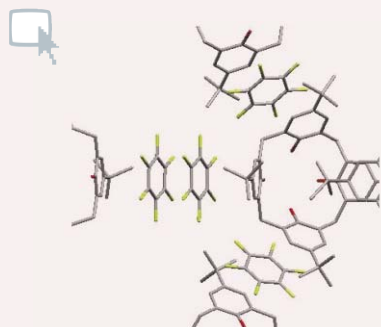


Water and tris(5-acetyl-3-thienyl)methane (TATM) assemble into a one-dimensional channel compound

Paul S. Sidhu, Konstantin A. Udachin and John A. Ripmeester

Water induces long-range order into the tris(5-acetyl-3-thienyl)methane host by linking the host acetyl oxygens, giving a one-dimensional channel structure that contains additional disordered water molecules.

1360

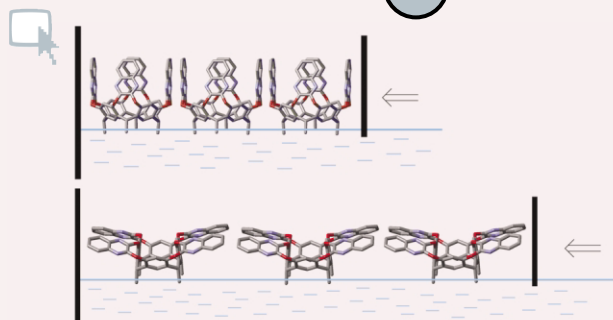


Electrostatic and short-range interactions compete in directing the structure of *p*-tert-butylcalix[4]arene inclusion compounds of fluorinated benzenes

Gary D. Enright, Konstantin A. Udachin and John A. Ripmeester*

Some fluorine-substituted benzenes promote *p*-tert-butylcalix[4]arene guest–host structures where electrostatic interactions dominate the structural motifs by π -stacking with host phenyl rings and sometimes each other.

1362

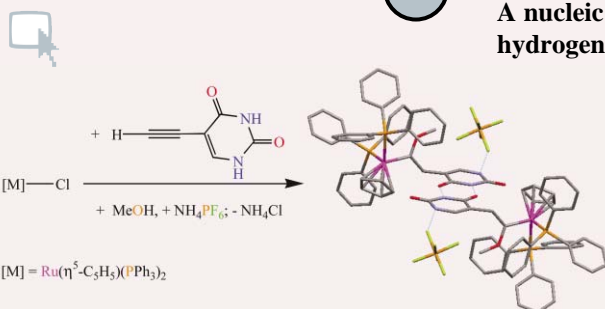


Zn^{II}-induced conformational control of amphiphilic cavitands in Langmuir monolayers

Markus Frei, Federica Marotti and François Diederich*

Reversible switching from the C_{4v}-symmetric *vase* to the C_{2v}-symmetric *kite* conformation of resorcin[4]arene cavitands was induced by stoichiometric Zn^{II} ion coordination. Langmuir monolayers were obtained of both conformers with the area per molecule increasing dramatically from 120 Å² for the *vase* to 270 Å² for the *kite* form.

1364

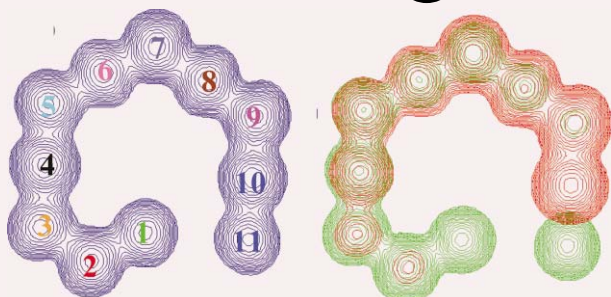


A nucleic acid base derivative tethered to a ruthenium carbene complex: hydrogen bonded dimers in both the solid state and solution?

Hayrullo Hamidov, John C. Jeffery and Jason M. Lynam*

A ruthenium carbene complex containing a tethered uracil group has been prepared and shows a dimeric structure in the solid state: evidence for persistence of this structure in solution has been obtained.

1366

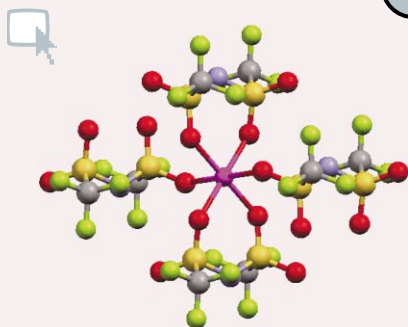


A high-throughput NMR-based ee-assay using chemical shift imaging

Manfred T. Reetz,* Patrick Tielmann, Andreas Eipper, Alfred Ross* and Götz Schlotterbeck

A high-throughput screening system for determining enantiopurity, based on NMR chemical shift imaging, allows up to 5600 ee-determinations per day.

1368

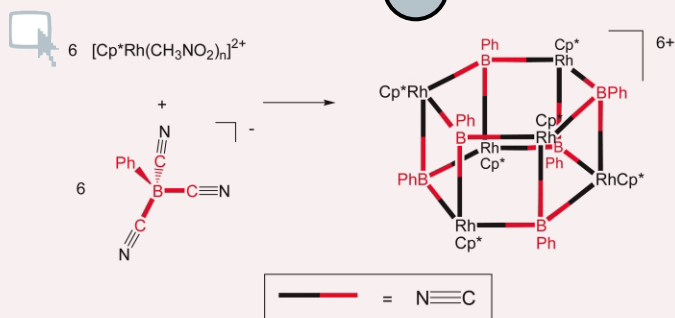


Metal bis((trifluoromethyl)sulfonyl)amide complexes: highly efficient Friedel–Crafts acylation catalysts

Martyn J. Earle,* Ullastiina Hakala, Barry J. McAuley, Mark Nieuwenhuyzen, Alwar Ramani and Kenneth R. Seddon

A range of metal bis((trifluoromethyl)sulfonyl)amide complexes, including many previously unreported ones, have been synthesised, most of which have been found to be excellent Friedel–Crafts acylation catalysts in the absence of solvent; these reactions have also been carried out in ionic liquids, which allow the catalysts to be recycled and reused.

1370

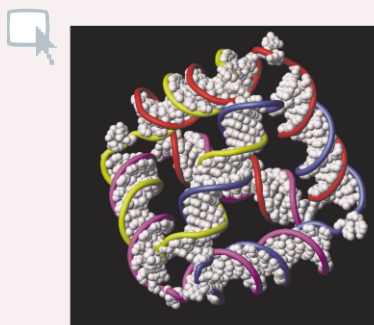


Synthesis and characterization of the hexagonal prismatic cage {THF C[PhB(CN)₃]₆[Cp*Rh]₆}⁶⁺

Matthew L. Kuhlman, Haijun Yao and Thomas B. Rauchfuss*

Condensation of Cp*Rh(CH₃NO₂)_n²⁺ and the tricyanoborate [PhB(CN)₃]⁻ affords the hexagonal bipyramidal cage {[PhB(CN)₃]₆[Cp*Rh]₆}⁶⁺, demonstrating that tetrahedral tricyanide building blocks can lead to cage structures.

1372

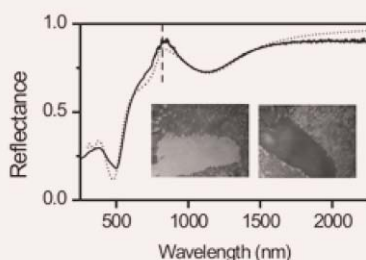


The single-step synthesis of a DNA tetrahedron

Russell P. Goodman,* Richard M. Berry and Andrew J. Turberfield

A tetrahedral nanostructure whose edges are DNA double helices self-assembles spontaneously when four oligonucleotides are annealed in solution.

1374

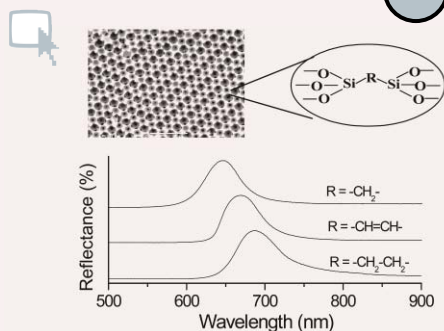


Optical properties of mesoporous II–VI semiconductor compound films

I. S. Nandhakumar,* T. Gabriel, X. Li, G. S. Attard, M. Markham, D. C. Smith and J. J. Baumberg

The optical properties and birefringence of nanostructured mesoporous CdTe films were measured by UV–VIS reflectance spectroscopy and optical microscopy under cross–polarized illumination respectively.

1376

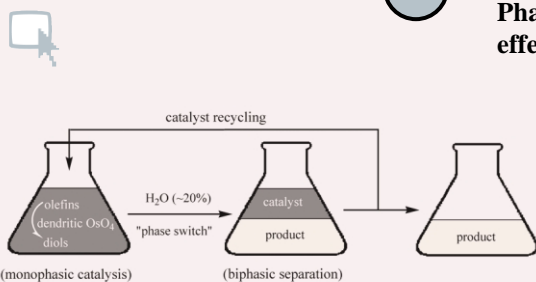


Synthesis, characterization and optical properties of ordered macroporous organosilicas

Zuocheng Zhou, Xiaoying Bao and X. S. Zhao*

Ordered macroporous organosilica materials have been prepared wherein the organic spacer and pore size may be tuned to allow generation of different phases with different refractive indexes.

1378

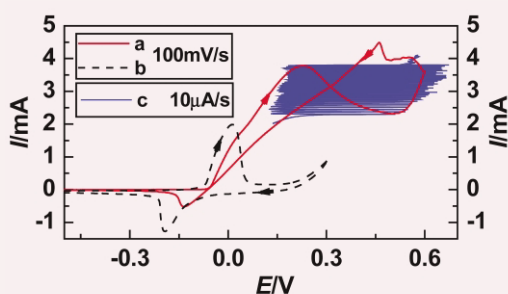


Phase selectively soluble dendrimer-bound osmium complex: a highly effective and easily recyclable catalyst for olefin dihydroxylation

Wei-Jun Tang, Nian-Fa Yang,* Bing Yi, Guo-Jun Deng, Yi-Yong Huang and Qing-Hua Fan*

A new switched biphasic catalysis system for highly effective olefin dihydroxylation has been described, in which the dendritic osmium catalyst preferred to dissolve in the non-polar organic layer and could be easily separated from the polar diol products through phase separation induced by addition of water at the end of the reaction.

1380



Transition of oscillatory mechanism for methanol electro-oxidation on nano-structured nickel hydroxide film (NNHF) electrode

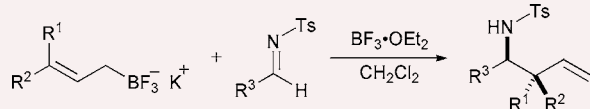
Wei Huang, Zelin Li,* Youdi Peng and Zhenjiang Niu

Instead of CO_{ad} formation and removal as on Pt electrodes, coupling of charge transfer with diffusion and convection mass transfer accounts for the oscillation found in the methanol electro-oxidation on the NNHF electrode.

1382

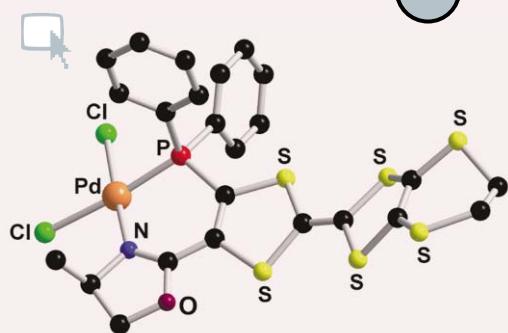
Allylation and highly diastereoselective *syn* or *anti* crotylation of *N*-toluenesulfonylimines using potassium allyl- and crotyltrifluoroborates

Sze-Wan Li and Robert A. Batey*



Air and moisture stable potassium allyl- and crotyltrifluoroborates undergo addition to *N*-sulfonyl and *N*-sulfinyl aldimines in the presence of Lewis acids, to provide the corresponding homoallylic amines in high yields and excellent diastereoselectivity.

1384

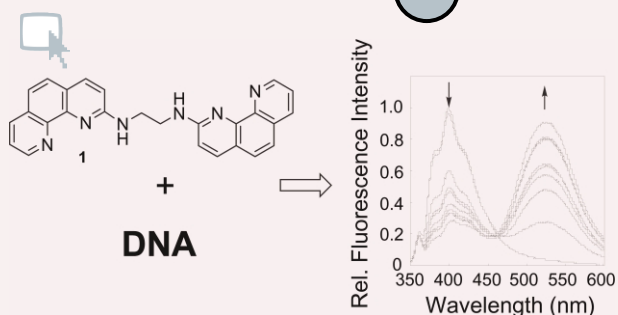


Tetrathiafulvalene based phosphino-oxazolines: a new family of redox active chiral ligands

Céline Réthoré, Marc Fourmigué* and Narcis Avarvari*

Electroactive chiral ethylenedithio-tetrathiafulvalene-oxazolines (EDT-TTF-OX) and -phosphinooxazolines (EDT-TTF-PHOX) have been synthesized and characterized, together with the racemic palladium complex (EDT-TTF-PHOX) PdCl_2 .

1386

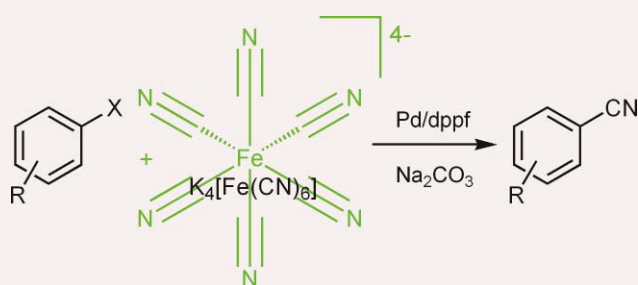


Bis(phenanthroline)-ethylenediamine conjugate displays excimer fluorescence upon binding with DNA

Keigo Hayashi, Hitoshi Akutsu, Hiroaki Ozaki and Hiroaki Sawai*

1,2-Bis(1,10-phenanthroline-2-yl)ethylenediamine **1** displays a unique excimer fluorescence at 528 nm by binding with DNA, while its monomer fluorescence at 400 nm shows a decrease upon binding with DNA. **1** works as a groove-binder to DNA.

1388

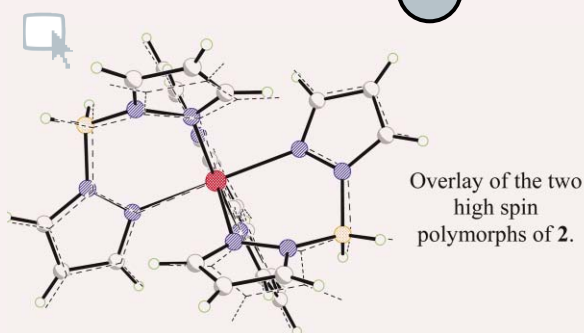


Potassium hexacyanoferrate(II)—a new cyanating agent for the palladium-catalyzed cyanation of aryl halides

Thomas Schareina, Alexander Zapf and Matthias Beller*

The use of potassium hexacyanoferrate(II) as a cyanating agent for the general synthesis of benzonitriles is described. Under optimized reaction conditions good yields of the desired products and unprecedented catalyst productivities have been achieved.

1390

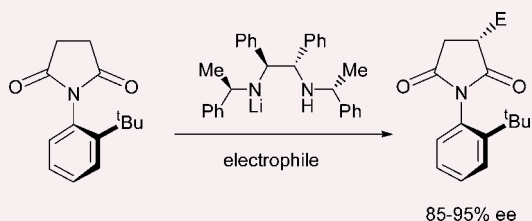


Thermal and light induced polymorphism in iron(II) spin crossover compounds

Amber L. Thompson, Andrés E. Goeta,* José A. Real,* Ana Galet and M. Carmen Muñoz

The crystal structures of the thermal and light induced spin states of $\{\text{Fe}[\text{H}_2\text{B}(\text{pz})_2]_2\text{L}\}$ ($[\text{H}_2\text{B}(\text{pz})_2]^-$ = dihydrobis(pyrazolyl)borate, L = 2,2'-bipyridine (**1**), bipy and 1,10-phenanthroline, phen (**2**)), demonstrate that **2** exhibits “thermal and light induced polymorphism,” while **1** does not.

1392

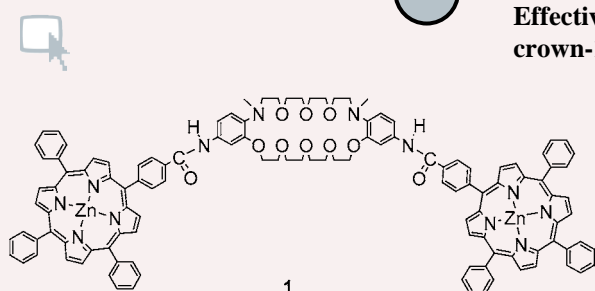


A novel asymmetric route to succinimides and derived compounds: synthesis of the lignan lactone (+)-hinokinin

D. Jonathan Bennett, Paula L. Pickering and Nigel S. Simpkins*

A novel approach to chiral succinimides and derived compounds has been developed that involves chiral lithium amide desymmetrisation of an *N*-ortho-tert-butylphenyl succinimide to generate a putative atropisomeric intermediate enolate, alkylation of which enables access to the lignan lactone (+)-hinokinin.

1394



Effective cation-assisted chirality induction using a dibenzo-diaza-30-crown-10 with bis(zinc(II) porphyrin) units

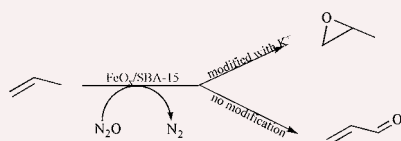
Yuji Kubo,* Yusuke Ishii, Toshiharu Yoshizawa and Sumio Tokita

The first rationalized diaza crown ether-bis(porphyrin) conjugate with a large ring-based conformation flexibility has been synthesized, showing an effective K^+ -assisted chirality induction.

1396

Iron-catalysed propylene epoxidation by nitrous oxide: dramatic shift of allylic oxidation to epoxidation by the modification with alkali metal salts

Xiaoxing Wang, Qinghong Zhang, Qian Guo, Yinchuan Lou, Lüjuan Yang and Ye Wang*



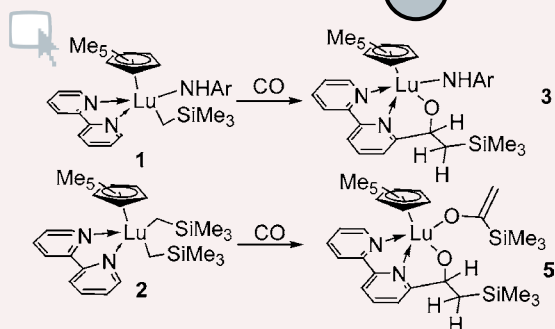
The modification of $FeO_x/SBA-15$ with K^+ dramatically shifted the allylic oxidation of C_3H_6 to epoxidation by N_2O

1398

C–H activation of a 2,2'-bipyridine ligand within (mono)pentamethylcyclopentadienyl lutetium complexes

Thomas M. Cameron,* John C. Gordon, Brian L. Scott and William Tumas

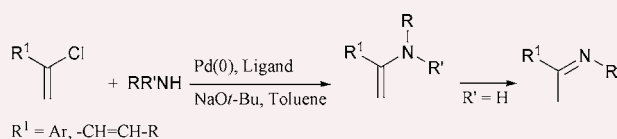
We report the activation of a 2,2'-bipyridine ligand within a class of (mono)cyclopentadienyl lanthanide complexes when reacted with carbon monoxide.



1400

Palladium catalyzed amination of vinyl chlorides: a new entry to imines, enamines and 2-amino-1,3-butadienes

José Barluenga,* M. Alejandro Fernández, Fernando Aznar and Carlos Valdés



$R^1 = Ar, -CH=CH-R$

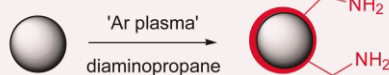
Vinyl chlorides are used in palladium catalyzed cross-coupling reactions with amines to give rise to enamines, imines and 2-amino-1,3-butadienes with very high yields and chemoselectivity.

1402

Plasmachemical surface functionalised beads: versatile tailored supports for polymer assisted organic synthesis

Jas Pal Badyal, Audrey M. Cameron, Neil R. Cameron, Diane M. Coe, Richard Cox, Benjamin G. Davis,* Leslie J. Oates, Gisle Oye, Christos Spanos and Patrick G. Steel*

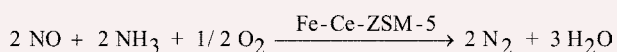
Plasmachemical surface modification of porous polystyrene beads with allylamine or diaminopropane provides reactive amine functionality exclusively at accessible surface sites, allowing faster reactions than classically prepared materials.



1404

Fe–Ce–ZSM-5 a new catalyst of outstanding properties in the selective catalytic reduction of NO with NH₃

G. Carja, G. Delahay,* C. Signorile and B. Coq

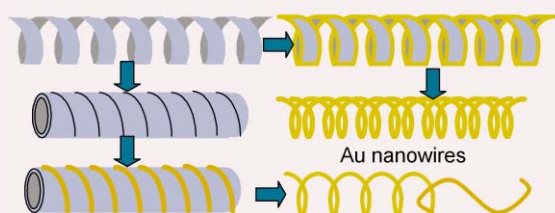


A Fe–Ce–ZSM-5 catalyst elaborated from a new synthesis route exhibits very high NO conversion (75–100%) in the selective catalytic reduction of NO by NH_3 in a wide temperature window (523–823 K), even in the presence of H_2O and SO_2 .

1406

Preparation of helical gold nanowires on surfactant tubules

Ryo Takahashi and Tsutomu Ishiwatari*

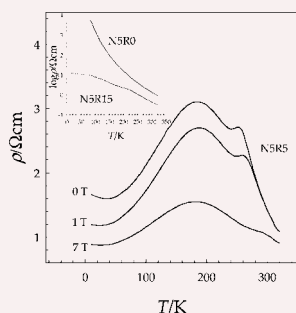


A novel approach has been found for the synthesis of gold nanowires shaped as single, double, and multiple helical structures, using surfactant tubules as template.

1408

Unexpected effect of Ru-substitution in lightly doped manganites

Lorenzo Malavasi,* M. Cristina Mozzati, Cristina Tealdi, M. Rosa Pascarelli, Carlo B. Azzoni and Giorgio Flor

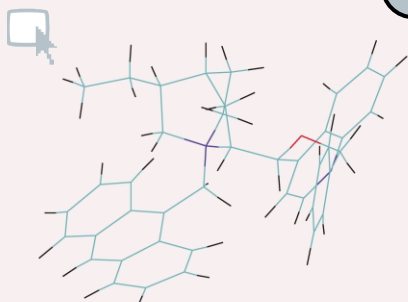


In this communication we report about an unexpected effect of Ru-doping on $\text{La}_{1-x}\text{Na}_x\text{MnO}_{3+\delta}$ manganites. These results are explained by considering a compensation mechanism based on oxygen content variation.

1410

Computational screening of combinatorial catalyst libraries

James L. Melville, Benjamin I. Andrews, Barry Lygo and Jonathan D. Hirst*

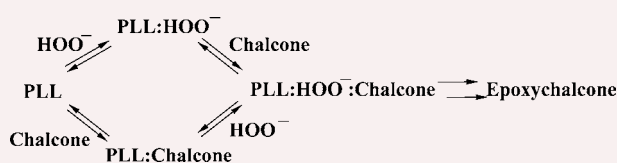


A computational catalyst design methodology is presented, utilizing combinatorial synthesis in parallel with chemometric analysis. The technique has been successfully applied to a library of cinchonidine-based phase transfer catalysts.

1412

Kinetics of chalcone oxidation by peroxide anion catalysed by poly-L-leucine

Giacomo Carrea, Stefano Colonna, Alastair D. Meek, Gianluca Ottolina* and Stanley M. Roberts

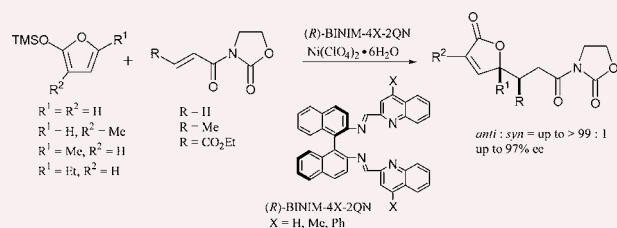


The kinetics of the enantioselective chalcone oxidation by H_2O_2 , catalysed by poly-L-leucine, follows a steady state random bireactant mechanism with one of the pathways – HOO^- binding first – kinetically preferred.

1414

Asymmetric Michael addition reactions of 2-silyloxyfurans catalyzed by binaphthylidene-Ni(II) complexes

Hiroyuki Suga,* Takeo Kitamura, Akikazu Kakehi and Toshihide Baba



N,N' -Bis(2-quinolylmethylene)-1,1'-binaphthyl-2,2'-diamine-Ni(II) complex and analogous complexes were found to be efficient chiral Lewis acid catalysts for the asymmetric Michael addition reactions between 2-silyloxyfurans and 3-alkenoyl-2-oxazolidinones.

1416

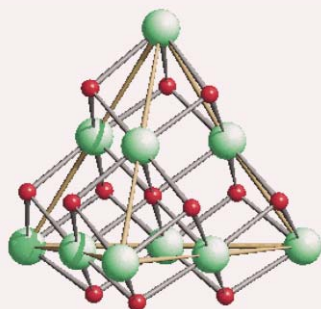


Growth of aligned carbon nanofibres over large areas using colloidal catalysts at low temperatures

B. Kleinsorge, V. B. Golovko, S. Hofmann, J. Geng, D. Jefferson, J. Robertson and B. F. G. Johnson*

Highly purified cobalt colloids have been employed as a catalyst to grow aligned carbon nanofibres at temperatures as low as 300 °C by dc plasma enhanced chemical vapour deposition over large areas.

1418

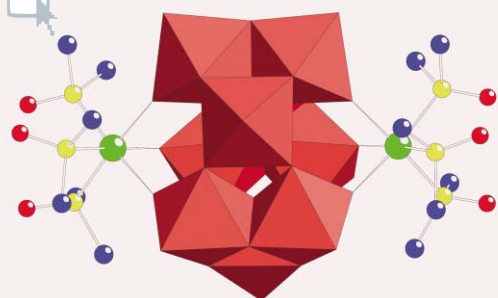


Supertetrahedral decametallenic Ni(II) clusters directed by μ_6 -tris-alkoxides

Rachel Shaw, Ian S. Tidmarsh, Rebecca H. Laye, Barbara Breeze, Madeleine Helliwell, Euan K. Brechin,* Sarah L. Heath, Mark Murrie, Stefan Ochsenbein, Hans-Ulrich Güdel* and Eric J. L. McInnes*

Reactions of triol ligands with Ni(II) diketonates in superheated alcohol or acetonitrile solutions give decametallenic Ni(II) clusters with highly regular supertetrahedral cores.

1420



A novel isopolytungstate functionalized by ruthenium: $[\text{HW}_9\text{O}_{33}\text{Ru}^{\text{II}}_2(\text{dmsO})_6]^{7-}$

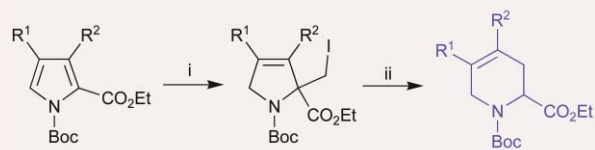
Lihua Bi, Firasat Hussain, Ulrich Kortz,* Masahiro Sadakane and Michael H. Dickman

The ruthenium-supported isopolyanion $[\text{HW}_9\text{O}_{33}\text{Ru}^{\text{II}}_2(\text{dmsO})_6]^{7-}$ (**1**) is composed of a nonatungstate wheel stabilized by two $\text{Ru}(\text{dmsO})_3$ groups, representing the first structurally characterized Ru-coordinated polyoxotungstate and a novel class of isopolyanions supporting photochromic moieties.

1422

Rearrangement of pyrrolines derived from the Birch reduction of electron-deficient pyrroles: radical ring-expansion to substituted tetrahydropyridines

Peter G. Turner, Timothy J. Donohoe* and Rick P. C. Cousins



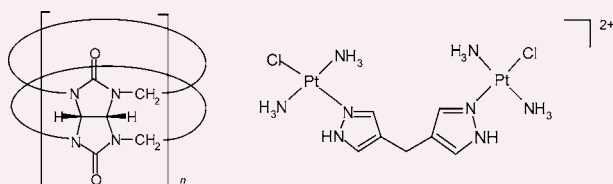
(i) Li, NH_3 then CH_2I_2 ; (ii) Bu_3SnH , AIBN.

The Birch reduction of pyrroles can be quenched with dihalomethanes, leading to compounds which are excellent precursors for radical ring expansion reactions.

1424

Multi-nuclear platinum complexes encapsulated in cucurbit[n]uril as an approach to reduce toxicity in cancer treatment

Nial J. Wheate, Anthony I. Day, Rodney J. Blanch, Alan P. Arnold, Carleen Cullinane and J. Grant Collins*



Encapsulation of $\text{trans}-[\{\text{PtCl}(\text{NH}_3)_2\}_2\mu\text{-dpzm}]^{2+}$ in cucurbituril slows the rate of reaction of the platinum complex with guanosine without significantly affecting its cytotoxicity.

1426

Selective production of hydrogen from partial oxidation of methanol over silver catalysts at low temperatures

Liuye Mo, Xiaoming Zheng and Chuin-Tih Yeh*

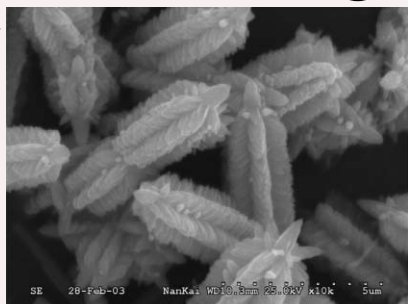


Hydrogen can be selectively produced from the partial oxidation of methanol over Ag/CeO₂-ZnO catalyst at a low temperatures <200 °C.

1428

Rotor-like ZnO by epitaxial growth under hydrothermal conditions

X. P. Gao,* Z. F. Zheng, H. Y. Zhu, G. L. Pan, J. L. Bao, F. Wu and D. Y. Song

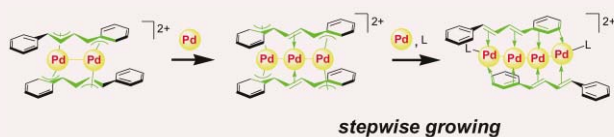


Rotor-like ZnO was grown from a mixture of rod-like ZnO and a saturated Zn(OH)₄²⁻ solution under moderate hydrothermal conditions at 100 °C, in which the rod-like ZnO crystal plane acts as a matrix core, and the branched nanorods showed fast epitaxial growth.

1430

Stepwise growth of polypalladium chains in 1,4-diphenyl-1,3-butadiene sandwich complexes

Yasuki Tatsumi, Tomoki Naga, Hiromitsu Nakashima, Tetsuro Murahashi* and Hideo Kurosawa*

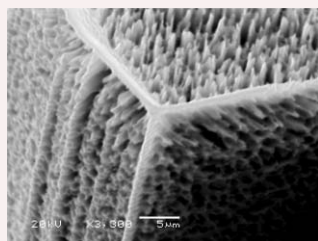


A series of 1,4-diphenyl-1,3-butadiene multinuclear palladium sandwich complexes are synthesized by stepwise growth of palladium chains within a sandwich framework.

1432

p-Type macroporous silicon having three-dimensional structure

Sung-Ho Lee* and Ryutaro Maeda

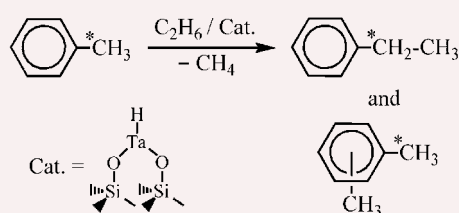


Novel macroporous silicon with three-dimensional structure was fabricated using an organic-based electrolyte, dimethylformamide (DMF), in the p-type silicon. The obtained three-dimensional macroporous structure grew wholly along the <100> orientation of the p-type silicon wafer.

1434

Cross-metathesis between ethane and toluene catalyzed by [(≡SiO)₂TaH]: the first example of a cross-metathesis reaction between an alkane and an aromatic

Mostafa Taoufik, Ekkehard Schwab, Michael Schultz, Dominic Vanoppen, Marc Walter, Jean Thivolle-Cazat* and Jean-Marie Basset*

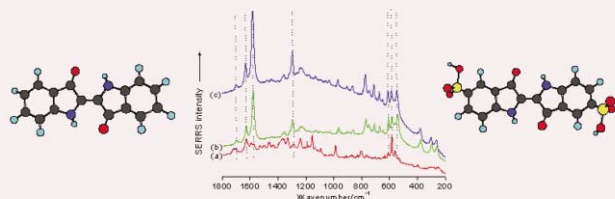


The silica-supported tantalum hydride [(≡SiO)₂TaH] **1** catalyzes at moderate temperature (150–250 °C) the cross-metathesis reaction between toluene and ethane, to form mainly ethylbenzene and xylenes.

1436

Analysis of the conversion of indigo into indigo carmine dye using SERRS

Iqbal T. Shadi, Babur Z. Chowdhry,* Martin J. Snowden and Robert Withnall*

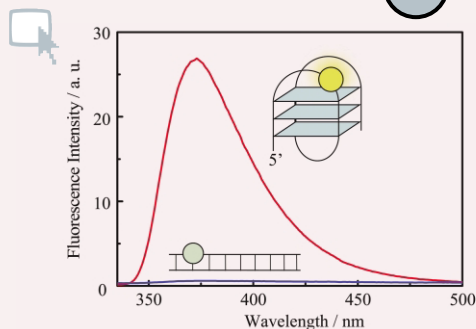


In a novel application SERRS has been used, by employing a silver sol, to monitor and analyse the conversion of indigo into the indigo carmine dye.

1438

Fluorescence properties of 2-aminopurine in human telomeric DNA

Takumi Kimura, Kiyohiko Kawai, Mamoru Fujitsuka and Tetsuro Majima*

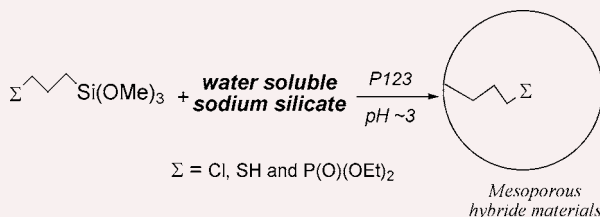


Ap was used to monitor the duplex to quadruplex conformational change in human telomeric DNA based on the fluorescence intensities and lifetimes of Ap in the duplexes and quadruplexes.

1440

Direct syntheses of functionalized mesostructured silica by using an inexpensive silica source

Robert J. P. Corriu,* Ahmad Mehdi, Catherine Reyé and Chloé Thieuleux



A general and economic one step synthesis methodology for the preparation of organically functionalised mesostructured silica was obtained by the co-condensation of water soluble sodium silicate and different function organotrialkoxysilanes.

COPIES OF CITED ARTICLES

The Library and Information Centre (LIC) of the RSC offers a first class Document Delivery Service for items in Chemistry and related subjects. Contact the LIC, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, UK.

This service is only available from the LIC in London and not the RSC in Cambridge.

Tel: +44 (0) 20 7437 8656; Fax: +44 (0) 20 7287 9798; E-mail: library@rsc.org

FREE E-MAIL ALERTING SERVICE

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.

ADVANCE ARTICLES AND ELECTRONIC JOURNAL

Free site-wide access to Advance Articles and the 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 contact details.

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

AUTHOR INDEX

- Akutsu, Hitoshi, 1386
 Andrews, Benjamin I., 1410
 Arnold, Alan P., 1424
 Attard, G. S., 1374
 Avarvari, Narcis, 1384
 Aznar, Fernando, 1400
 Azzoni, Carlo B., 1408
 Baba, Toshihide, 1414
 Badyal, Jas Pal, 1402
 Bao, J. L., 1428
 Bao, Xiaoying, 1376
 Barluenga, José, 1400
 Basset, Jean-Marie, 1434
 Batey, Robert A., 1382
 Baumberg, J. J., 1374
 Beller, Matthias, 1388
 Bennett, D. Jonathan, 1392
 Berry, Richard M., 1372
 Bi, Lihua, 1420
 Blanch, Rodney J., 1424
 Boulahya, Khalid, 1356
 Brechin, Euan K., 1418
 Breeze, Barbara, 1418
 Cameron, Audrey M., 1402
 Cameron, Neil R., 1402
 Cameron, Thomas M., 1398
 Carja, G., 1404
 Carmen Muñoz, M., 1390
 Carrea, Giacomo, 1412
 Chowdhry, Babur Z., 1436
 Coe, Diane M., 1402
 Colonna, Stefano, 1412
 Coq, B., 1404
 Corma, Avelino, 1356
 Corriu, Robert J. P., 1440
 Cousins, Rick P. C., 1422
 Cox, Richard, 1402
 Cullinane, Carleen, 1424
 Davis, Benjamin G., 1402
 Day, Anthony I., 1424
 Delahay, G., 1404
 Deng, Guo-Jun, 1378
 Díaz-Cabañas, Maria Jose, 1356
 Dickman, Michael H., 1420
 Diederich, François, 1362
 Donohoe, Timothy J., 1422
 Earle, Martyn J., 1368
 Eipper, Andreas, 1366
 Enright, Gary D., 1360
 Fan, Qing-Hua, 1378
 Fernández, M. Alejandro, 1400
 Flor, Giorgio, 1408
 Fourmigué, Marc, 1384
 Frei, Markus, 1362
 Fujitsuka, Mamoru, 1438
 Gabriel, T., 1374
 Galet, Ana, 1390
 Gao, X. P., 1428
 Geng, J., 1416
 Goeta, Andrés E., 1390
 Golovko, V. B., 1416
 Goodman, Russell P., 1372
 Gordon, John C., 1398
 Grant Collins, J., 1424
 Güdel, Hans-Ulrich, 1418
 Guo, Qian, 1396
 Hakala, Ullastiina, 1368
 Hamidov, Hayrullo, 1364
 Hayashi, Keigo, 1386
 Heath, Sarah L., 1418
 Helliwell, Madeleine, 1418
 Hirst, Jonathan D., 1410
 Hofmann, S., 1416
 Howard, Judith A. K., 1352
 Huang, Wei, 1380
 Huang, Yi-Yong, 1378
 Hursthouse, M. B., 1354
 Hussain, Firasat, 1420
 Ishii, Yusuke, 1394
 Ishiwatari, Tsutomu, 1406
 Jefferson, D., 1416
 Jeffery, John C., 1364
 Johnson, B. F. G., 1416
 Kakehi, Akikazu, 1414
 Kawai, Kiyohiko, 1438
 Kimura, Takumi, 1438
 Kitamura, Takeo, 1414
 Kleinsorge, B., 1416
 Kortz, Ulrich, 1420
 Kubo, Yuji, 1394
 Kuhlman, Matthew L., 1370
 Kurosawa, Hideo, 1430
 Laye, Rebecca H., 1418
 Lee, Sung-Ho, 1432
 Li, Sze-Wan, 1382
 Li, X., 1374
 Li, Zelin, 1380
 Light, M. E., 1354
 Lou, Yinchuan, 1396
 Lygo, Barry, 1410
 Lynam, Jason M., 1364
 McAuley, Barry J., 1368
 McInnes, Eric J. L., 1418
 Maeda, Ryutaro, 1432
 Majima, Tetsuro, 1438
 Malavasi, Lorenzo, 1408
 Markham, M., 1374
 Marotti, Federica, 1362
 Meek, Alastair D., 1412
 Mehdi, Ahmad, 1440
 Melville, James L., 1410
 Mo, Liuye, 1426
 Moody, Christopher J., 1341
 Mozzati, M. Cristina, 1408
 Murahashi, Tetsuro, 1430
 Murrie, Mark, 1418
 Naga, Tomoki, 1430
 Nakashima, Hiromitsu, 1430
 Nandhakumar, I. S., 1374
 Nicolopoulous, Stavros, 1356
 Nieuwenhuyzen, Mark, 1368
 Niu, Zhenjiang, 1380
 Oates, Leslie J., 1402
 Ochsenbein, Stefan, 1418
 Ottolina, Gianluca, 1412
 Oye, Gisle, 1402
 Ozaki, Hiroaki, 1386
 Pan, G. L., 1428
 Pascarelli, M. Rosa, 1408
 Peng, Youdi, 1380
 Pickering, Paula L., 1392
 Ramani, Alwar, 1368
 Rauchfuss, Thomas B., 1370
 Real, José A., 1390
 Reetz, Manfred T., 1366
 Réthoré, Céline, 1384
 Rey, Fernando, 1356
 Reyé, Catherine, 1440
 Ripmeester, John A., 1358, 1360
 Roberts, Stanley M., 1412
 Robertson, J., 1416
 Ross, Alfred, 1366
 Sadakane, Masahiro, 1420
 Sawai, Hiroaki, 1386
 Schareina, Thomas, 1388
 Schlotterbeck, Götz, 1366
 Schultz, Michael, 1434
 Schwab, Ekkehard, 1434
 Scott, Brian L., 1398
 Seddon, Kenneth R., 1368
 Shadi, Iqbal T., 1436
 Shaw, Rachel, 1418
 Sidhu, Paul S., 1358
 Signorile, C., 1404
 Simpkins, Nigel S., 1392
 Smith, D. C., 1374
 Snowden, Martin J., 1436
 Song, D. Y., 1428
 Spanos, Christos, 1402
 Spencer, Elinor C., 1352
 Steed, Jonathan W., 1352, 1354
 Steel, Patrick G., 1402
 Suga, Hiroyuki, 1414
 Takahashi, Ryo, 1406
 Tang, Wei-Jun, 1378
 Taoufik, Mostafa, 1434
 Tatsumi, Yasuki, 1430
 Tealdi, Cristina, 1408
 Thieuleux, Chloé, 1440
 Thivolle-Cazat, Jean, 1434
 Thompson, Amber L., 1390
 Tidmarsh, Ian S., 1418
 Tielmann, Patrick, 1366
 Tocher, Derek A., 1352
 Tokita, Sumio, 1394
 Tuam, William, 1398
 Turberfield, Andrew J., 1372
 Turner, David R., 1352, 1354
 Turner, Peter G., 1422
 Udachin, Konstantin A., 1358, 1360
 Valdés, Carlos, 1400
 Vanoppen, Dominic, 1434
 Walter, Marc, 1434
 Wang, Xiaoxing, 1396
 Wang, Ye, 1396
 Wheate, Nial J., 1424
 Withnall, Robert, 1436
 Wu, F., 1428
 Yang, Lüjuan, 1396
 Yang, Nian-Fa, 1378
 Yao, Haijun, 1370
 Yeh, Chuin-Tih, 1426
 Yi, Bing, 1378
 Yoshizawa, Toshiharu, 1394
 Zapf, Alexander, 1388
 Zhang, Qinghong, 1396
 Zhao, X. S., 1376
 Zheng, Xiaoming, 1426
 Zheng, Z. F., 1428
 Zhou, Zuocheng, 1376
 Zhu, H. Y., 1428

NOTE: An asterisk in the heading of each paper indicates the author who is to receive any correspondence.