NJC

New Journal of Chemistry. An international journal for the chemical sciences www.rsc.org/njc

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 1144-0546 CODEN NJCHES 34(3) 369-572 (2010)



Cover

See Nikoletta B. Báthori et al., pp. 405-413. Partial isostructurality indicates why new crystals grow on specific faces of the mother prism. Nikoletta B. Báthori, Petra Bombicz, Susan A. Bourne and Gerhard A. Venter, New J. Chem., 2010, 34, 405.

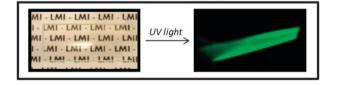
LETTERS

385

A promising way to obtain large, luminescent and transparent thick films suitable for optical devices

Jérôme Deschamps,* Audrey Potdevin, Nathalie Caperaa, Geneviève Chadeyron, Sandrine Therias and Rachid Mahiou

A simple and general procedure for the elaboration of large, thick, transparent and self-standing films, consisting of well-dispersed phosphors embedded in a polymer matrix and applicable to optical devices, is reported.

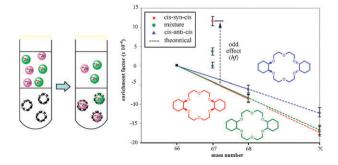


388

Stereochemistry effect of dicyclohexano-18-crown-6 on zinc isotope separation

Yi Lin, Jeff Espinas, Stéphane Pellet-Rostaing,* Alain Favre-Réguillon and Marc Lemaire*

Zinc isotopes were fractionated using a liquid/liquid extraction with DCH18C6 and its pure cis-syn-cis and cis-anti-cis stereoisomers. The structures of the stereoisomers of DCH18C6 contribute to the enrichment of the Zn isotopes, with the best fractionation for the cis-syn-cis derivative.



EDITORIAL STAFF

Editor (RSC)

Sarah Ruthven

Deputy editor (RSC)

Kathleen Too Editor (CNRS)

Denise Parent

Assistant editor (CNRS)

Marie Cote

Senior publishing editor

Flinor Richards

Publishing editors

Mary Badcock, David Barden, David Parker, Michael Townsend

Publishing assistants

Anna Anderson, Jackie Cockrill

Publisher

Emma Wilson

Founding editor

Lionel Salem

For queries about submitted articles please contact Elinor Richards, Senior publishing editor, in the first instance. E-mail nic@rsc.org

For pre-submission queries please contact Sarah Ruthven (RSC), Editor. E-mail njc-rsc@rsc.org

New Journal of Chemistry (Print: ISSN 1144-0546; electronic: ISSN 1369-9261) is published 12 times a year by the Centre National de la Recherche Scientifique (CNRS), 3 rue Michel-Ange, 75794 Paris cedex 16, France, and the Royal Society of Chemistry (RSC), Thomas Graham House, Science Park, Milton Road, Cambridge, UK CB4 OWF.

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

2010 Annual (print + electronic) subscription price: £894; US\$1668. 2010 Annual (electronic) subscription price: £804; US\$1501 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 New Journal of Chemistry, c/o Mercury Airfreight International Ltd., 365 Blair Road, Avenel, NJ 07001. All despatches outside the UK by Consolidated Airfreight.

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

For marketing opportunities relating to this journal, contact marketing@rsc.org

New Journal of Chemistry An international journal for the chemical sciences

www.rsc.org/nic

The New Journal of Chemistry is a broad-based primary journal encompassing all branches of the chemical sciences. Published monthly, it contains full research articles, letters, opinions and perspectives.

Kumar Biradha, Kharqapur, India

Fabrizia Grepioni, Bologna, Italy

Peter Junk, Monash, Australia

Helen Hailes, London, UK

Board members

EDITORIAL BOARD

Co-editor-in-chief

Pascal Le Floch, Palaiseau, France

Co-editor-in-chief

Jerry Atwood, Columbia, MO, USA

Consulting editor

Odile Eisenstein, Montpellier, France

Associate editors Manuscripts should be directed to one of the Editors detailed below.

Professor Peter Junk School of Chemistry, Monash University, Box 23, Victoria 3800. Australia Fax (+61) 3 9905 4597 Tel (+61) 3 9905 4570 E-mail njc@sci.monash.edu.au Professor Michael J. Scott Department of Chemistry University of Florida, PO Box 117200. Gainesville, FL 32611, USA Fax (+1) 352 392 3255 Tel (+1) 352 846 1165 E-mail njc@chem.ufl.edu

Dr Denise Parent New Journal of Chemistry Université Montpellier II,

Place Eugène Bataillon C.C. 014.

Barbara Nawrot, Lodz, Poland

Michael Scott, Gainesville, FL, USA

Alan Rowan, Niimegen,

The Netherlands

34095 Montpellier cedex 5, France Fax (+33) (0) 4 67 14 48 79 Tel (+33) (0) 4 67 14 48 78 E-mail njc@univ-montp2.fr

ADVISORY BOARD

Markus Antonietti, MPI, Potsdam, Germany

Yasuhiro Aoyama, Kyoto, Japan Matthias Bremer, Darmstadt, Germany Robert Crabtree, New Haven, CT, USA

François Fajula, Montpellier, France John A. Gladysz, College Station, TX, USA

George Gokel, St Louis, MO, USA Andrew B. Holmes, Melbourne, Australia Miguel Julve, Valencia, Spain

Henryk Koslowski, Wrocław, Poland Jean-Pierre Majoral, Toulouse, France Luca Prodi, Bologna, Italy Jan Reedijk, Leiden, The Netherlands David Reinhoudt, Enschede, The Netherlands Kari Rissanen, Jyväskylä, Finland Clément Sanchez, Paris, France Jeremy K. M. Sanders, Cambridge, UK Jean-Pierre Sauvage, Strasbourg, France

Jonathan W. Steed, Durham, UK Vivian Yam, Hong Kong, PR China

INFORMATION FOR AUTHORS

Full details on how to submit material for publication in New Journal of Chemistry are given in the Instructions for Authors (available from http://www.rsc.org/authors). Submissions should be made via the journal's homepage: http://www.rsc.org/njc.

Authors may reproduce/republish portions of their published contribution without seeking permission from the CNRS and the RSC, provided that any such republication is accompanied by an acknowledgement in the form: (Original Citation) - Reproduced by permission of the CNRS and the RSC

©The Royal Society of Chemistry and the Centre National de la Recherche Scientifique 2010. Apart from fair dealing for the purposes of research or private study for noncommercial purposes, or criticism or review, as permitted under the Copyright, Designs and Patents Act 1988 and the Copyright and Related Rights Regulation 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 Publishers 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

 ⊕ 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.

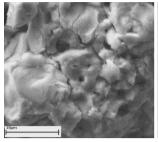
LETTERS

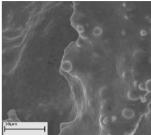
391

The influence of a dc electric field on chemical interactions in "peroxide-metal" systems during combustion processes

Sergev M. Busurin, Maxim V. Kuznetsov, Yury G. Morozov, Mariya L. Busurina and Ivan P. Parkin*

The application of an external electric field to a self-propagating reaction changes the product microstructure.



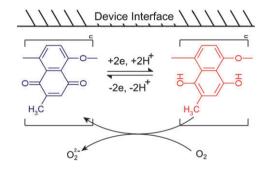


395

Plumbagin: a natural product for smart materials?

Laura A. A. Newton, Emma Cowham, Duncan Sharp, Ray Leslie and James Davis*

A quinone loaded film capable of on-demand production of reactive oxygen species.



398

Toward preparative resolution of chiral alcohols by an organic chemical method

Nino Malic, Cornelis Moorhoff, Valerie Sage, Dilek Saylik, Euneace Teoh, Janet L. Scott and Christopher R. Strauss*

Asymmetric alcohols were resolved as predominantly α-O-glycosides of 2,3-unsaturated hexoses and the enantiomers recovered by a transglycosylation process that could allow the auxiliary to be recycled.

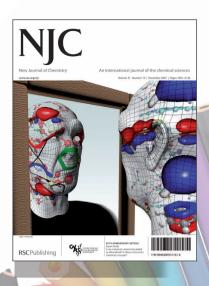
$$R_4$$
, R_3 R_5 OH R_5 O



The chiral drug Albicar: resolution of its racemate via complexation with BINOL

Denis A. Lenev,* Konstantin A. Lyssenko and Remir G. Kostyanovsky*

Both enantiomers of the chiral drug Albicar were prepared from their complexes with (R)- and (S)-BINOL.



Drawing disciplines together

It's not just about chemistry...

The New Journal of Chemistry (NJC) publishes research where chemistry connects with other areas of science creating an interface of many disciplines, inspiring biology, nanomedicine, nanotechnologies, materials science, catalysis etc.

Recently published articles include:

Biology focus: Polycationic phosphorus dendrimers: synthesis, characterization, study of cytotoxicity, complexation of DNA, and transfection experiments

Clément Padié, Maria Maszewska, Kinga Majchrzak et al New J. Chem., 2009, **33**, (2), 318-326

Physics focus: N-Inversion in 2-azabicyclopentane derivatives: model simulations for a laser controlled molecular switch Bastian Klaumünzer and Dominik Kröner *New J. Chem.*, 2009, **33**, (1), 186-195

Materials focus: A new family of biocompatible and stable magnetic nanoparticles: silica cross-linked pluronic F127 micelles loaded with iron oxides

Zhaoyang Liu, Jun Ding and Jumin Xue New J. Chem., 2009, **33**, (1), 88-92

Supramolecular focus: Redox-driven switching in pseudorotaxanes Ali Trabolsi, Mohamad Hmadeh, Niveen M. Khashab *et al New J. Chem.*, 2009, **33**, (2) 254-263

Editorial Board



Jerry Atwood Editor in chief



Michael Scott Associate Editor



View Article Online

Pascal Le Floch Editor in chief



Peter Junk Associate Editor

Submit your work today!

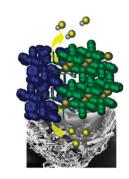


405

Investigation of sublimation with and without dissociation in the chloride and nitrate salts of 4-(1-hydroxy-1,2-diphenylethyl)pyridine

Nikoletta B. Báthori,* Petra Bombicz, Susan A. Bourne* and Gerhard A. Venter

Both $1H^+ \cdot Cl^-$ and $1H^+ \cdot NO_3^-$ sublime and recrystallize on heating, the former with dissociation and loss of HCl. The two salts are isostructural, but Hirschfeld surface analysis shows significant differences between the intermolecular interactions.

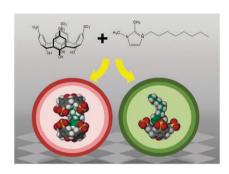


414

Multi-component bi-layers featuring [1-octyl-2,3dimethylimidazolium \cap p-sulfonatocalix[4]arene] supermolecules

Irene Ling, Yatimah Alias,* Alexandre N. Sobolev and Colin L. Raston*

1-Octyl-2,3-dimethylimidazolium cations are confined in the anionic p-sulfonatocalix[4] arene cavity, essentially forming 'molecular capsules', or with the n-octyl chain penetrating the adjacent bi-layer in multi-component solid state structures.

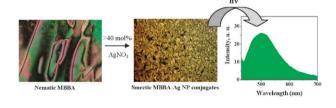


420

Nematic to smectic texture transformation in MBBA by in situ synthesis of silver nanoparticles

P. K. Sudhadevi Antharjanam* and Edamana Prasad*

Nanoparticle-induced texture transformation: In situ synthesis of silver nanoparticles in MBBA liquid crystal induces a texture change for the mesogenic material. The resulting organic-inorganic conjugate forms a glassy liquid crystalline phase upon rapid cooling and emits light at 500 nm upon photo-excitation.

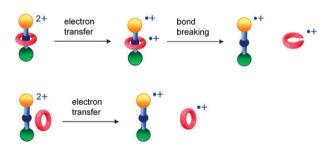




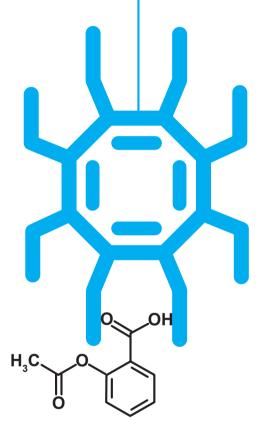
Electron transfer from wheel to axle in a rotaxane. A mass spectrometric investigation

Sara Pasquale, Stefano Di Stefano* and Bernardo Masci*

Electron transfer processes from the anthracene-based wheel to the viologen-based axle have been investigated in a new rotaxane and in related unthreaded and pseudo-rotaxanic adducts by a MS/MS CID technique.



New adventures on the web



ChemSpider is a free online, structure centric community for chemists, providing fast access to millions of unique chemical entities, resources and information and the opportunity to collaborate with a world wide community of scientists. Rapidly becoming the richest single source of structure based chemistry information online, ChemSpider is a ground breaking initiative now supported by the RSC, the most innovative of chemical societies.

www.chemspider.com





432

The structure of the ionic clathrate hydrate of tetrabutylammonium valerate $(C_4H_9)_4NC_4H_9CO_2 \cdot 39.8H_2O$

Tatyana Rodionova,* Vladislav Komarov, Janusz Lipkowski and Natalia Kuratieva

The detailed crystal structure of the ionic clathrate hydrate of tetrabutylammonium valerate (C₄H₉)₄NC₄H₉CO₂ · 39.8H₂O has been determined by single crystal X-ray analysis. Special features of the crystal structures of ionic clathrate hydrates of tetraalkylammonium carboxylates are discussed.

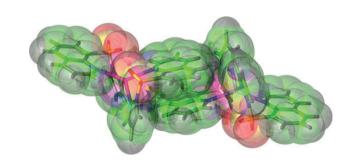


439

8-Quinoline based ligands and their metallic derivatives: A structural and statistical investigation of quinoline π - π stacking interactions

Radu F. Semeniuc,* Thomas J. Reamer and Mark D. Smith

The ligand 8-sulfonyl-(1-pyrazolyl)-quinoline coordinates to silver (I) centers to form supramolecular structures based on concerted π - π stacking/C-H··· π interactions. A statistical analysis of these interactions showed that they are common for metal complexes of quinoline based ligands.

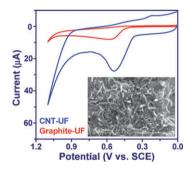


453

A multi-walled carbon nanotube/poly(urea-formaldehyde) composite prepared by *in situ* polycondensation for enhanced electrochemical sensing

Bangguo Wei, Luyan Zhang and Gang Chen*

A novel multi-walled carbon nanotube/poly(urea-formaldehyde) composite was prepared for enhanced electrochemical sensing based on in situ polycondensation.

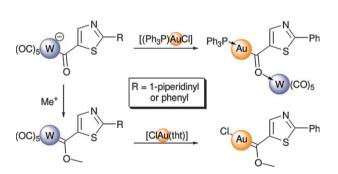


458

Fischer-type tungsten acyl (carbeniate), carbene and carbyne complexes bearing C5-attached thiazolyl substituents: interaction with gold(I) fragments

Christoph E. Strasser, Stephanie Cronje and Helgard G. Raubenheimer*

Carbeniate (acyl), carbene and carbyne complexes of tungsten prepared from 5-deprotonated thiazoles and tungsten hexacarbonyl react with gold(I) complexes by ligand transfer and/or adduct formation.



Introducing....

a new integrated publishing platform



The RSC has launched a powerful new integrated content delivery platform, providing over 165 years of world-class RSC-hosted journal, book and database content – all from one simple search. The new online resource supports multiple content types and offers rich functionality, powerful searching, simple browsing and intuitive navigation.

search faster o navigate smarter o connect more

RSCPublishing





470

An improved two-step synthetic route to primary allylic alcohols from aldehydes

Zheng Liu, Yaqiong Gong, Hoe-Sup Byun and Robert Bittman*

A convenient protocol to prepare AlH₃ in THF from LiAlH₄ and n-BuBr has been developed. AlH3 was used for the 1,2-reduction of (E)- α , β -unsaturated esters in situ, affording allylic alcohols in high yields (72–95%). To prepare the (E)- α , β -unsaturated esters, a modified Horner-Wadsworth-Emmons reaction in the presence of K_2CO_3 in H_2O –2-PrOH (1 : 1) was employed.

$$\begin{array}{c} \textit{n-BuBr} + \text{LiAIH}_4 \\ \downarrow \quad \text{THF} \\ \\ \text{R} \\ \hline \\ \text{S5-95\%} \\ \\ \text{(EtO)}_2\text{P(O)CH}_2\text{CO}_2\text{Et} \\ \\ \text{K}_2\text{CO}_3, \ \text{H}_2\text{O/2-PrOH (1:1)} \\ \\ \text{pH 10.7} \\ \\ \text{RCHO} \\ \end{array}$$

476

From PASS 1 to YES to AND logic: building parallel processing into molecular logic gates by sequential addition of receptors

David C. Magri* and A. Prasanna de Silva

The molecular logic gate 4 detects the proton and zinc concentrations in an aqueous solution based on AND and INH logic; collectively 1-5 provide insight into the rational design of future logic gates with built-in orthogonality and cooperativity.

482

Alkyne hydroarylation with palladium(II) complexes bearing chelating N-heterocyclic ligands: effect of non-coordinated nitrogens on catalyst efficiency

Luca Gazzola, Cristina Tubaro,* Andrea Biffis and Marino Basato

Palladium(II) complexes with chelating ligands bearing nitrogen atoms not involved in the coordination to the metal display a good catalytic activity in the hydroarylation of alkynes, giving selectively products of formal trans-hydroarylation of the triple bond.

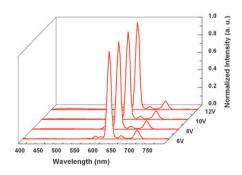


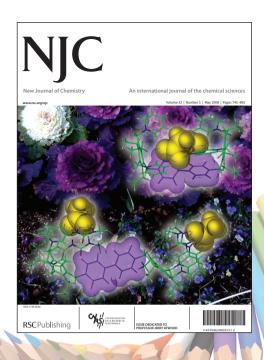
487

Synthesis and electroluminescent property of novel europium complexes with oxadiazole substituted 1,10-phenanthroline and 2,2'-bipyridine ligands

Zhuqi Chen, Fei Ding, Feng Hao, Ming Guan, Zuqiang Bian,* Bei Ding and Chunhui Huang

Several europium complexes, with oxadiazole moieties incorporated into the neutral ligand, show improved thermal stabilities for vapor deposition, highly efficient photoluminescence, and remarkable electroluminescence performance.





Drawing disciplines together

Introducing Professor Peter Junk

Associate Editor

Peter Junk graduated from the University of Western Australia in 1984 obtaining a Bachelor of Science with first class honours in physical and inorganic chemistry, and completed his PhD in organometallic chemistry under the supervision of Professor Colin Raston in 1988. He currently holds a position of Professor of Chemistry and is the Head of the School of Chemistry at Monash University, Australia.

His main research interests are in rare earth and main group organometallic, organoamido and aryloxo chemistry, but has applied interests in X-ray imaging and corrosion inhibition. To date, he has published more than of 250 publications and reviews.

Submit your work to NJC

Professor Junk will be delighted to receive your work. Submissions to *NJC* are welcomed via our homepage for authors and referees.



"Working with such a dynamic and esteemed institution as the RSC will be a privilege. I have always seen the RSC and its suite of journals as the top echelon in publishing... NJC provides a perfect environment for publishing articles of general chemistry to a wide audience..."



495

Diorganoplatinum(II) complexes with chelating PN ligand 2-(diphenylphosphinoamino)pyridine; synthesis and kinetics of the reaction with MeI

S. Masoud Nabavizadeh.* Elham S. Tabei. Fatemeh Niroomand Hosseini, Niloofar Keshavarz, Sirous Jamali and Mehdi Rashidi*

New organoplatinum(II) complexes were synthesized and characterized by multinuclear NMR spectroscopy. The kinetics and mechanism of oxidative addition of MeI to these complexes was studied by UV-Vis spectrophotometry.

500

Cationic side-chains control DNA/RNA binding properties and antiproliferative activity of dicationic dibenzotetraaza[14]annulene derivatives

Marijana Radić Stojković, Marko Marjanović, Dariusz Pawlica, Lukasz Dudek, Julita Eilmes, Marijeta Kralj and Ivo Piantanida*

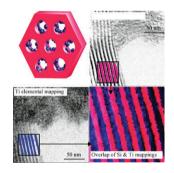
Studied DBTAA derivatives efficiently differentiated between DNA and RNA as well as between A-T(U) and G-C basepair composition and demonstrated pronounced antiproliferative activity.

508

Insight into the structure and localization of the titania overlayer in TiO₂-coated SBA-15 materials

Fuxiang Zhang, Xavier Carrier, Jean-Marc Krafft, Yuji Yoshimura and Juliette Blanchard*

EELS (Energy-Filtered TEM) images of a TiO₂/SBA-15 showing the localisation of the grafted TiO₂ particles.



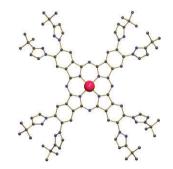
517

Diels-Alder reaction of vinylene carbonate and 2,5-dimethylfuran: kinetic vs. thermodynamic control

Céline Taffin, Glenda Kreutler, Damien Bourgeois,* Eric Clot and Christian Périgaud

Thermal Diels-Alder reaction: prolonged heating, and, instead of a black tar, obtain the exo adduct cleanly! The reaction between 2,5-dimethyl furan and vinylene carbonate was studied from experimental and computational points of view, to demonstrate the shift from kinetic to thermodynamic control.



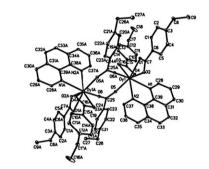


Novel pyrazole functionalized phthalocyanines and their first row transition metal complexes

Daniel Dehe, Christian Lothschütz and Werner R. Thiel*

Well soluble octapyrazolyl functionalized phthalodinitriles and their transition metal complexes were obtained by electrophilic aromatic substitution of dichlorophthalonitrile with pyrazoles bearing alkyl side chains.





Crystal structures, luminescent and thermal properties of a new series of lanthanide complexes with 4-ethylbenzoic acid

Hong-Mei Ye, Ning Ren, Jian-Jun Zhang,* Shu-Jing Sun and Juan-Fen Wang

A series of lanthanide complexes with the 4-ethylbenzoic acid ligand (4-eba), $[Ln(4-eba)_3(phen)]_2$ (Ln = Nd, Sm, Eu, Tb, Dy and Ho; phen = 1,10-phenanthroline), have been synthesized and structurally characterized by single-crystal X-ray diffraction.

541 MS Gas phase ions

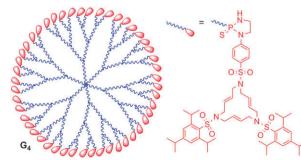
Aminoacid loaded clay in MALDI plate

A new role for layered double hydroxides hybrid materials—uptake and delivery of small molecules into the gas phase

Pedro D. Vaz* and Carla D. Nunes

Gas-phase ions can be produced directly from composite clay materials holding guest species inside its intragallery spacing in MALDI experiments. This approach leads to the analysis of low molecular weight analytes with interference-free signals from the matrix.





An efficient synthesis combining phosphorus dendrimers and 15-membered triolefinic azamacrocycles: towards the stabilization of platinum nanoparticles

Grégory Franc, Elena Badetti, Carine Duhayon, Yannick Coppel, Cédric-Olivier Turrin, Jean-Pierre Majoral,* Rosa-María Sebastián* and Anne-Marie Caminade*

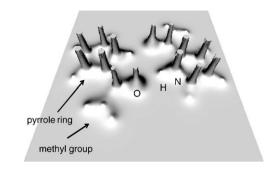
Triazatriolefinic macrocycles grafted as terminal groups of phosphorus dendrimers allow the obtaining of Pt nanoparticle networks.

556

Spectroscopic and theoretical studies on some new pyrrol-2-yl-chloromethyl ketones

Alina T. Dubis,* Małgorzata Domagała and Sławomir J. Grabowski*

A novel series of pyrrole-2-yl chloromethyl ketones were synthesized and studied by FT-IR, ¹H, ¹³C NMR spectroscopy and DFT calculations at B3LYP/6-311++G(d,p) level of approximation.

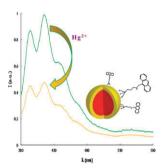


567

Preparation of Hg²⁺ selective fluorescent chemosensors based on surface modified core-shell aluminosilicate nanoparticles

Estefanía Delgado-Pinar, Noemí Montoya, Maite Galiana, M. Teresa Albelda, Juan C. Frías, Hermás R. Jiménez, Enrique García-España* and Javier Alarcón*

A synthetic procedure for the preparation of functional structured hybrid materials containing boehmite-silica core-shell nanoparticles and anthracene-containing amines is reported.



AUTHOR INDEX

Alarcón, Javier, 567 Albelda, M. Teresa, 567 Alias, Yatimah, 414 Antharianam. P. K. Sudhadevi, 420 Badetti, Elena, 547 Basato, Marino, 482 Báthori, Nikoletta B., 405 Bian, Zuqiang, 487 Biffis, Andrea, 482 Bittman, Robert, 470 Blanchard, Juliette, 508 Bombicz, Petra, 405 Bourgeois, Damien, 517 Bourne, Susan A., 405 Busurin, Sergey M., 391 Busurina, Mariya L., 391 Byun, Hoe-Sup, 470 Caminade, Anne-Marie, 547 Caperaa, Nathalie, 385 Carrier, Xavier, 508 Chadeyron, Geneviève, 385 Chen, Gang, 453 Chen, Zhuqi, 487 Clot, Eric, 517 Coppel, Yannick, 547 Cowham, Emma, 395 Cronje, Stephanie, 458 Davis, James, 395 de Silva, A. Prasanna, 476 Dehe, Daniel, 526 Delgado-Pinar, Estefanía, 567 Deschamps, Jérôme, Di Stefano, Stefano, 426 Ding, Bei, 487 Ding, Fei, 487 Domagała, Małgorzata, 556 Dubis, Alina T., 556 Dudek, Lukasz, 500 Duhayon, Carine, 547 Eilmes, Julita, 500 Espinas, Jeff, 388 Favre-Réguillon, Alain, 388 Franc, Grégory, 547 Frías, Juan C., 567 Galiana, Maite, 567 García-España, Enrique, 567 Gazzola, Luca, 482 Gong, Yaqiong, 470 Grabowski, Sławomir J., 556 Guan, Ming, 487 Hao, Feng, 487 Huang, Chunhui, 487 Jamali, Sirous, 495 Jiménez, Hermás R., Keshavarz, Niloofar, 495 Komarov, Vladislav, 432 Kostyanovsky, Remir G., 403 Krafft, Jean-Marc, 508 Kralj, Marijeta, 500 Kreutler, Glenda, 517 Kuratieva, Natalia, 432 Kuznetsov, Maxim V., 391 Lemaire, Marc, 388

Leney, Denis A., 403 Leslie, Ray, 395 Lin, Yi, 388 Ling, Irene, 414 Lipkowski, Janusz, 432 Liu, Zheng, 470 Lothschütz, Christian, 526 Lyssenko, Konstantin A., 403 Magri, David C., 476 Mahiou, Rachid, 385 Majoral, Jean-Pierre, 547 Malic, Nino, 398 Marjanović, Marko, Masci, Bernardo, 426 Montoya, Noemi, 567 Moorhoff, Cornelis, 398 Morozov, Yury G., 391 Nabavizadeh, S. Masoud, 495 Newton, Laura A. A., 395 Niroomand Hosseini, Fatemeh, 495 Nunes, Carla D., 541 Parkin, Ivan P., 391 Pasquale, Sara, 426 Pawlica, Dariusz, 500 Pellet-Rostaing, Stéphane, 388 Périgaud, Christian, 517 Piantanida, Ivo, 500 Potdevin, Audrey, 385 Prasad, Edamana, 420 Rashidi, Mehdi, 495 Raston, Colin L., 414

Raubenheimer, Helgard G., 458 Reamer, Thomas J., 439 Ren, Ning, 533 Rodionova, Tatyana, 432 Sage, Valerie, 398 Saylik, Dilek, 398 Scott, Janet L., 398 Sebastián, Rosa-María, 547 Semeniuc, Radu F., 439 Sharp, Duncan, 395 Smith, Mark D., 439 Sobolev, Alexandre N., Stojković, Marijana Radić, 500 Strasser, Christoph E., 458 Strauss, Christopher R., 398 Sun, Shu-Jing, 533 Tabei, Elham S., 495 Taffin, Céline, 517 Teoh, Euneace, 398 Therias, Sandrine, 385 Thiel, Werner R., 526 Tubaro, Cristina, 482 Turrin, Cédric-Olivier, 547 Vaz, Pedro D., 541 Venter, Gerhard A., 405 Wang, Juan-Fen, 533 Wei, Bangguo, 453 Ye, Hong-Mei, 533 Yoshimura, Yuji, 508 Zhang, Fuxiang, Zhang, Jian-Jun, Zhang, Luyan, 453

FREE E-MAIL ALERTS AND RSS FEEDS

Contents lists in advance of publication are available on the web *via* www.rsc.org/njc – 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 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 details.

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