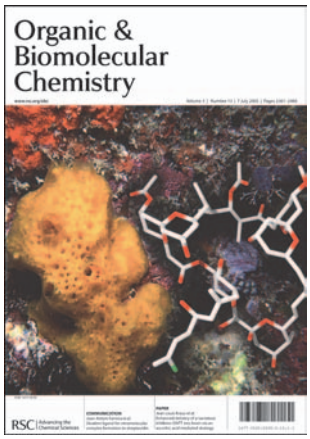
ISSN 1477-0520 CODEN OBCRAK 3(13) 2361–2484 (2005)



Cover

See Ian Paterson *et al.*, pp. 2399–2409
See Ian Paterson *et al.*, pp. 2410–2419
See Ian Paterson *et al.*, pp. 2420–2430
See Ian Paterson *et al.*, pp. 2431–2440
The figure shows the challenging 3D-structure of altohyrtin A, a potent anticancer agent of marine sponge origin, synthesised by the Paterson group using boron aldol methodology to enable its further preclinical development. Sponge photograph taken by Dr Andrew Flowers and provided by Dr Mary Garson.

Image reproduced by permission of Ian Paterson from *Org. Biomol. Chem.*, 2005, **3**, 2399 & 2410 & 2420 & 2431.

Inside Cover

See Matthew J. Wilkinson, Piet W. N. M. van Leeuwen and Joost N. H. Reek, pp. 2371–2383
The figure shows how two monodentate ligands can be assembled to form a bidentate chelating ligand to be used in transition metal catalysis. This is just one of the new strategies in the area of supramolecular catalysis assembly.

Image reproduced by permission of Joost Reek from *Org. Biomol. Chem.*, 2005, **3**, 2371.

CHEMICAL SCIENCE

C49

Drawing together the research highlights and news from all RSC publications, *Chemical Science* provides a 'snapshot' of the latest developments across the chemical sciences showcasing newsworthy articles, as well as the most significant scientific advances.

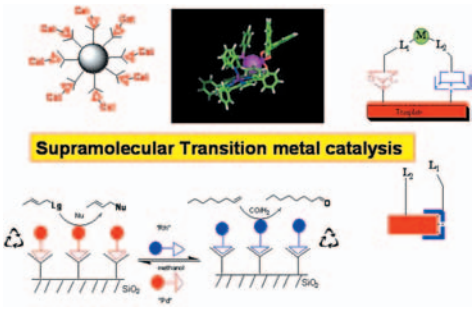
PERSPECTIVE

2371

New directions in supramolecular transition metal catalysis

Matthew J. Wilkinson, Piet W. N. M. van Leeuwen and Joost N. H. Reek*

This perspective describes new approaches to transition metal catalyst development that evolve from a combination of supramolecular strategies and rational ligand design.



Organic & Biomolecular Chemistry (print: ISSN 1477-0520; electronic: ISSN 1477-0539) 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, 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

2005 Annual (print + electronic) subscription price: £2400; US$3960. 2005 Annual (electronic) subscription price: £2160; US$3656. 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 Organic & Biomolecular Chemistry, 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

Organic & Biomolecular Chemistry

An international journal of synthetic, physical and biomolecular organic chemistry

www.rsc.org/obc

Organic & Biomolecular Chemistry brings together molecular design, synthesis, structure, function and reactivity in one journal. It publishes fundamental work on synthetic, physical and biomolecular organic chemistry as well as all organic aspects of: chemical biology, medicinal chemistry, natural product chemistry, supramolecular chemistry, macromolecular chemistry, theoretical chemistry, and catalysis.

EDITORIAL BOARD

INTERNATIONAL ADVISORY EDITORIAL BOARD

INFORMATION FOR AUTHORS

Full details of how to submit material for publication in Organic & Biomolecular Chemistry are given in the Instructions for Authors (available from http://www.rsc.org/authors). Submissions should be sent *via* ReSourCe: http://www.rsc.org/resource

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

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

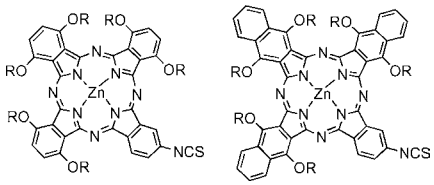
Royal Society of Chemistry: Registered Charity No. 207890

2384

Near IR emitting isothiocyanato-substituted fluorophores: their synthesis and bioconjugation to monoclonal antibodies

Wubiao Duan, Karen Smith, Huguette Savoie, John Greenman and Ross W. Boyle*

Two near IR active fluorophores suitable for bioconjugation to proteins have been synthesised and conjugated to monoclonal antibodies

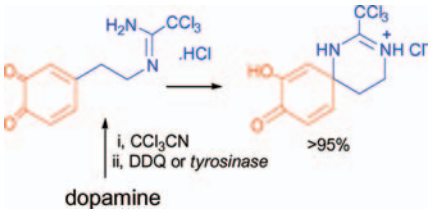


2387

Oxidation of *N*-substituted dopamine derivatives: irreversible formation of a spirocyclic product

Edward J. Land, Almudena Perona, Christopher A. Ramsden* and Patrick A. Riley

ortho-Quinones with 4-ethyl sidechains carrying amidine or thiourea functional groups rapidly cyclise to give novel cyclic products in high yield.

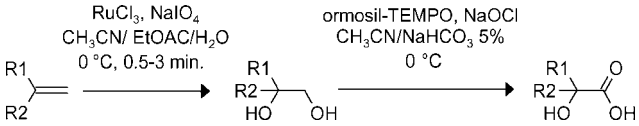


2389

Enhancing selectivity in oxidation catalysis with sol–gel nanocomposites

Pamela Gancitano, Rosaria Ciriminna, Maria Luisa Testa, Alexandra Fidalgo, Laura M. Ilharco and Mario Pagliaro*

Synthesis of valuable compounds such as α-hydroxy acids using a sol–gel hydrophobized nanostructured silica matrix doped with the organocatalyst TEMPO.

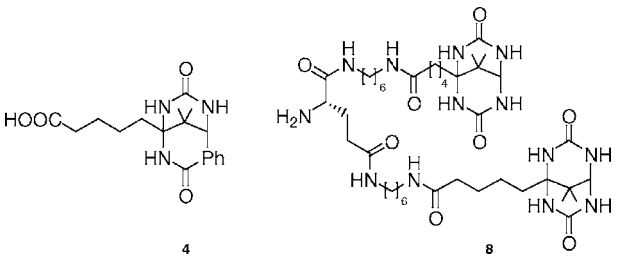


2393

Divalent ligand for intramolecular complex formation to streptavidin

Joan-Antoni Farrera,* Pedro Hidalgo-Fernández, Jurry M. Hannink, Jurriaan Huskens, Alan E. Rowan, Nico A. J. M. Sommerdijk and Roeland J. M. Nolte

Monovalent ligand **4** and divalent ligand **8** have been synthesized, and their thermodynamic parameters of complexation to avidin and streptavidin have been analyzed in terms of multivalent binding.

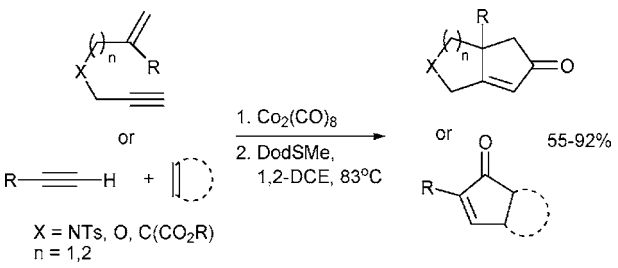


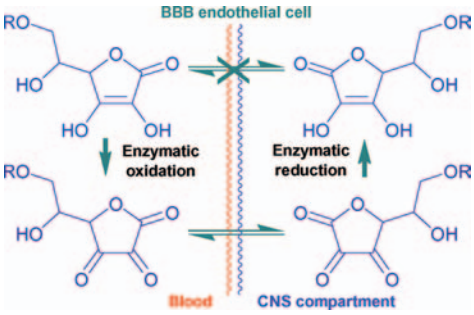
2396

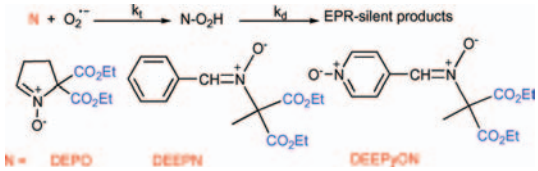
New odourless protocols for efficient Pauson–Khand annulations

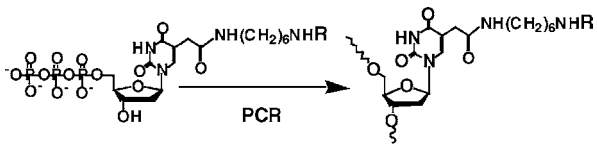
Jack A. Brown, Stephanie Irvine, William J. Kerr* and Colin M. Pearson

An inexpensive and odourless additive, dodecyl methyl sulfide, has been shown to be an effective promoter of Pauson–Khand cyclisations.

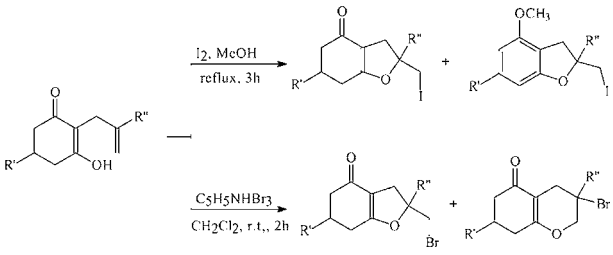


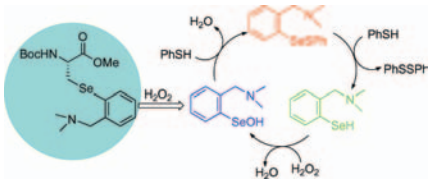






R: functional group(pyridine, imidazole, biotin, guanidinium, amino, mercaptopyridyl, phenanthrolne, --)





FREE E-MAIL ALERTS

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

* 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).

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.

FORTHCOMING ARTICLES

From α-helix to β-sheet – a reversible metal ion induced peptide secondary structure switch

Kevin Pagel, Toni Vagt, Tibor Kohajda and Beate Koksch (**DOI**: 10.1039/b505979h)

Evaluation of a new linker system cleaved using samarium(II) iodide. Application in the solid phase synthesis of carbonyl compounds

Fiona McKerlie, Iain M. Rudkin, Graham Wynne and David J. Procter (**DOI**: 10.1039/b506294b)

Enantioselective Friedel–Crafts type addition of indoles to nitro-olefins using a chiral hydrogen-bonding catalyst – synthesis of optically active tetrahydro-β-carbolines

Wei Zhuang, Rita G. Hazell and Karl Anker Jørgensen (**DOI**: 10.1039/b505220c)

L-Tartaric acid assisted binary organogel system: strongly enhanced fluorescence induced by supramolecular assembly

Chunyan Bao, Ran Lu, Ming Jin, Pengchong Xue, Changhui Tan, Guofa Liu and Yingying Zhao (**DOI**: 10.1039/b504945h)

Cyclodextrins as carriers for cinchona alkaloids: a pH-responsive selective binding system

Yu Liu, Guo-Song Chen, Yong Chen, Fei Ding and Jing Chen (**DOI**: 10.1039/b506053b)

New opportunity for enzymatic modification of fats and oils with industrial potentials

Zheng Guo and Xuebing Xu (**DOI**: 10.1039/b506763d)

Citations reported with a DOI instead of page numbers (*e.g.* A. N. Author, *Org. Biomol. Chem.*, 2005, **DOI**: 10.1039/b417644h) can be easily located from the article finder at the bottom of each journal homepage (*e.g.* www.rsc.org/obc) or from http://xlink.rsc.org/?DOI=xxxxxxxx where xxxxxxxx is replaced by the last eight characters of the DOI (*e.g.* http://xlink.rsc.org/?DOI=b417644h).

AUTHOR INDEX

New for 2005!

A high quality interdisciplinary journal publishing research into soft materials, including complex fluids. *Soft Matter* provides a forum for the communication of generic science underpinning the properties and applications of soft matter.

Interested? See the examples of forthcoming papers below, and log on to the website to *read issue 1 for free!*

Reviews

Frank–Kasper, quasicrystalline and related phases in liquid crystals

Goran Ungar and Xiangbing Zeng

Micro- and nanotechnology via reaction-diffusion

Bartosz A. Grzybowski, Kyle J.M. Bishop, Christopher J. Campbell, Marcin Fialkowski and Stoyan K. Smoukov

Communication

Type I Collagen, a versatile liquid crystal biological template for silica structuration from nano- to microscopic scales

Thibaud Coradin, David Eglin, M. M. Giraud-Guille, Jacques Livage and Gervaise Mosser

Papers

Effect of guest capture modes on molecular recognition by a dynamic cavity array at the air–water interface: soft *vs*. tight and fast *vs*. slow

Katsuhiko Ariga, Takashi Nakanishi, Jonathan P. Hill, Yukiko Terasaka, Daisuke Sakai and Jun-ichi Kikuchi

A small-angle neutron scattering study of biologically relevant mixed surfactant micelles comprising 1,2-diheptanoyl-sn-phosphatidylcholine and sodium dodecyl sulfate or dodecyltrimethylammonium bromide

Peter C. Griffiths, Alison Paul, Zeena Khayat, Richard K. Heenan, Radha Ranganathan and Isabelle Grillo

Intrinsic viscosity of dendrimers via equilibrium molecular dynamics

Philip M. Drew and David B. Adolf

Structure and rheology of aqueous micellar solutions and gels formed from an associative poly(oxybutylene)–poly(oxyethylene)–poly(oxybutylene) triblock copolymer

V. Castelletto, I. W. Hamley, X.-F. Yuan, A. Kelarakis and C. Booth

13050515

RSC | Advancing the Chemical Sciences

www.softmatter.org