

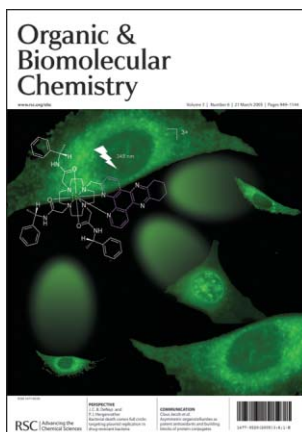
## In this issue...

## Topping etoposide

The synthesis and biological evaluation of novel etoposide derivatives in the quest for improved anti-tumor drugs  
See Daniel Dauzonne *et al.* page 1074.



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



## Cover

See Robert A. Poole, Gabriella Bobba, Martin J. Cann, Juan-Carlos Frias and David Parker, pp. 1013–1024

Excitation of the cationic terbium complex is followed by terbium emission and allows live cell imaging of the interior of the cell, including the cell nucleus.

Image reproduced by permission of David Parker and Robert A. Poole, *Org. Biomol. Chem.*, 2005, **3**, 1013

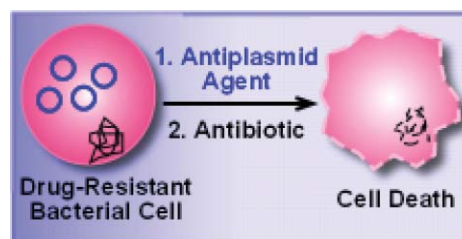
## PERSPECTIVE

959

## Bacterial death comes full circle: targeting plasmid replication in drug-resistant bacteria


Johna C. B. DeNap and Paul J. Hergenrother\*

Resistance or virulence-causing bacterial plasmids can be targeted for elimination by small molecules that hijack ctRNA-based replication and plasmid addition systems; such compounds offer a new weapon in the fight against bacterial infections.



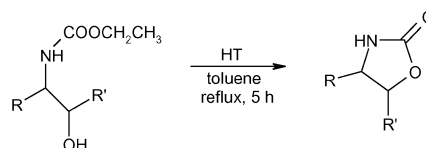
## COMMUNICATIONS

967


**Modified Mg : Al hydrotalcite in the synthesis of oxazolidin-2-ones**

Agnieszka Cwik, Aliz Fuchs, Zoltán Hell,\* Ildikó Böjtös, Dóra Halmai and Petra Bombicz

The modified Mg : Al (3 : 1) hydrotalcite has been found to be an efficient catalyst in the conversion of carbamates into oxazolidin-2-ones.



## EDITORIAL STAFF

### Managing editor

Caroline Potter

### Assistant editors

Suzanne Abbott, James Crow

### Crystallographic data editor

Kirsty Anderson

### Publishing assistant

Emma Crisp

### Team leader, serials production

Michelle Canning

### Technical editors

Susan Askey, David Barden, Nicola Burton,  
Christopher Incles, Michael Spencelayh,  
Joanna Stevens

### Editorial secretaries

Sonya Spring, Julie Thompson, Rebecca Gotobed

### Publisher

Janet Dean

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 Portland Customer Services, Commerce Way, Colchester, Essex, 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](http://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](mailto:advertising@rsc.org)

# Organic & Biomolecular Chemistry

An international journal of synthetic, physical and biomolecular organic chemistry

[www.rsc.org/obc](http://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

### Chair

Professor Ben Feringa, Groningen

Professor Chris Abell, Cambridge  
Professor Varinder Aggarwal, Bristol  
Professor Donna Blackmond,  
London

Professor Thomas Carell, Munich  
Professor Andrew Hamilton, Yale  
Professor Karl Jørgensen, Aarhus  
Professor Laura Kiessling,  
Wisconsin-Madison

Professor Shu Kobayashi, Tokyo  
Professor K C Nicolaou, Scripps;  
UC-San Diego  
Professor Jay Siegel, Zürich  
Professor Itamar Willner, Jerusalem  
Professor Peter Wipf, Pittsburgh

### Associate editor for North America

Professor Peter Wipf  
Department of Chemistry,  
University of Pittsburgh  
Pittsburgh, PA 15260, USA

Tel +1 412 624 8606

E-mail [pwipf@pitt.edu](mailto:pwipf@pitt.edu)

### International advisory board

Roger Alder (Bristol, UK)  
Vincenzo Balzani (Bologna, Italy)  
Barry Carpenter (Cornell, USA)  
Andre Charette (Montreal, Canada)  
Peter Chen (ETH, Switzerland)  
Jonathan Ellman (Berkeley, USA)  
Kurt Faber (Graz, Austria)  
Malcolm Forbes (North Carolina,  
USA)  
Sam Gellman (Wisconsin, USA)  
Jan Kihlberg (Umea, Sweden)  
Philip Kocienski (Leeds, UK)  
Steven V Ley (Cambridge, UK)  
Manuel Martín Lomas, (Seville,  
Spain)  
Zhang Li-He (Beijing, China)

Michael Martinelli (Amgen, USA)  
Keiji Maruoka (Kyoto, Japan)  
E W 'Bert' Meijer (Eindhoven,  
The Netherlands)  
Eiichi Nakamura (Tokyo, Japan)  
Ryoji Noyori (Nagoya, Japan)  
Mark Rizzacasa (Melbourne,  
Australia)  
Alanna Schepartz (Yale, USA)  
Oliver Seitz (Berlin, Germany)  
Kevan Shokat (UC San Francisco;  
UC Berkeley)  
Steve Street (Pfizer, UK)  
Suzanne Walker (Harvard, USA)  
Jon Waltho (Sheffield, UK)

James D White (Oregon, USA)  
Henry N. C. Wong (Hong Kong,  
China)  
Sam Zard (Ecole Polytechnique,  
France)

## INFORMATION FOR AUTHORS

Full details of how to submit material for publication in Organic & Biomolecular Chemistry are given in Instructions for Authors on our Web site <http://www.rsc.org/authors>. Correspondence on editorial matters should be addressed to: Dr Caroline V Potter, Managing Editor, Organic Publications, The Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, UK, CB4 0WF. Tel +44 (0) 1223 432137; Fax +44 (0) 1223 420247 E-mail [obc@rsc.org](mailto:obc@rsc.org)

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 Royal Society of Chemistry, 2005. 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 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).

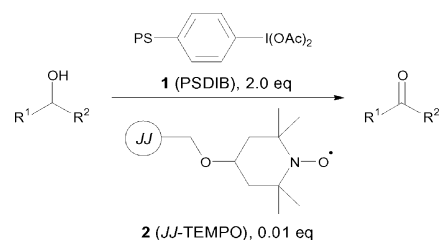
Royal Society of Chemistry: Registered Charity No. 207890

970

**A multipolymer system for organocatalytic alcohol oxidation**

Tracy Yuen Sze But, Yousuke Tashino, Hideo Togo and Patrick H. Toy\*

A system involving two polymer-supported reagents for the selective and organocatalytic oxidation of alcohols to aldehydes or ketones has been developed.

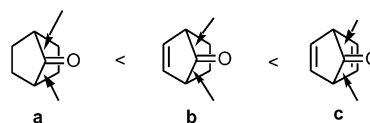


972

**Structural manifestations of the cheletropic reaction**

Goh Yit Wooi and Jonathan M. White\*

The structural moieties **b** and **c** have longer C–C and shorter C=O bonds than the saturated moiety **a**, suggesting the beginnings of cheletropic carbonyl extrusion in compounds containing **b** and **c**.

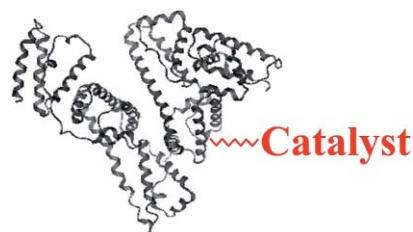


975

**Asymmetric organotellurides as potent antioxidants and building blocks of protein conjugates**

Sandra Pariagh, Karen M. Tasker, Fiona H. Fry, Andrea L. Holme, Catriona A. Collins, Neal Okarter, Nick Gutowski and Claus Jacob\*

New asymmetric organotellurides exhibiting good antioxidant properties *in vitro* and in cell culture can be attached to human serum albumin.

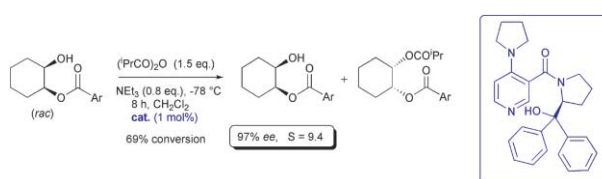


981

**Kinetic resolution of *sec*-alcohols using a new class of readily assembled (*S*)-proline-derived 4-(pyrrolidino)-pyridine analogues**

Ciarán Ó Dálaigh, Stephen J. Hynes, Declan J. Maher and Stephen J. Connon\*

A new class of proline-derived chiral 4-*N,N*-dialkylaminopyridine derivatives are capable of exploiting both H-bond and  $\pi$ - $\pi$  interactions to catalyse the kinetic resolution of racemic *sec*-alcohols with moderate to good selectivity.



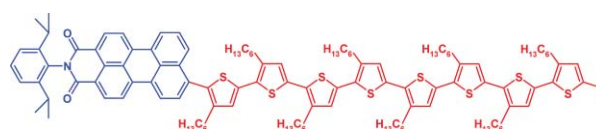
## ARTICLES

985

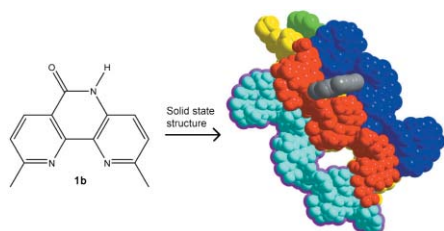
**Dye-functionalized head-to-tail coupled oligo(3-hexylthiophenes)—perylene—oligothiophene dyads for photovoltaic applications**

Jens Cremer, Elena Mena-Osteritz, Neil G. Pschierer, Klaus Müllen and Peter Bäuerle\*

Novel donor–acceptor hybrid molecules, consisting of head-to-tail coupled oligo(3-hexylthiophene)s covalently linked to perylenemonoimide, were synthesized and structure–property relationships established.



996

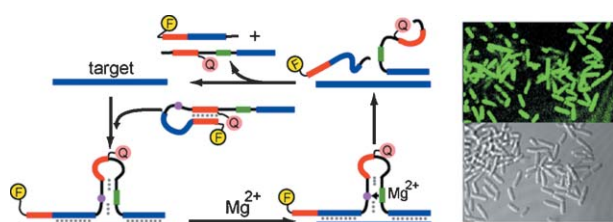


### Synthesis of 2-pyridone-fused 2,2'-bipyridine derivatives. An unexpectedly complex solid state structure of 3,6-dimethyl-9H-4,5,9-triazaphenanthren-10-one

Stefán Jónsson, Carlos Solano Arribas, Ola F. Wendt, Jay S. Siegel and Kenneth Wärnmark\*

The novel 2-pyridone-fused 2,2'-bipyridine derivative **1b** revealed an unexpectedly complex solid state structure where the 2-pyridone back-to-back H-bonding motif is absent.

1002

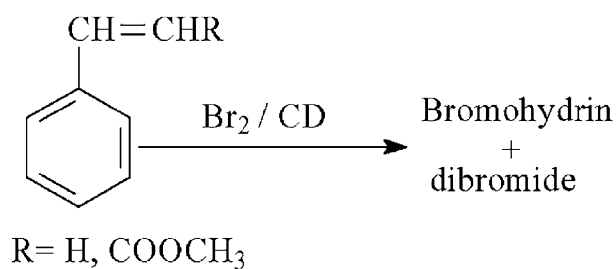


### Locked TASC probes for homogeneous sensing of nucleic acids and imaging of fixed *E. coli* cells

Shinsuke Sando,\* Atsushi Narita, Toshinori Sasaki and Yasuhiro Aoyama\*

Locked TASC (target-assisted self-cleavage) probes undergo a target-induced inactive-to-active (or folded-to-open) conformational change and are used for rRNA imaging of *E. coli* cells.

1008

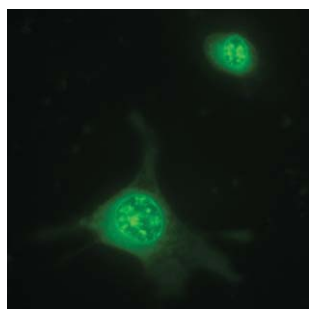


### Effect of cyclodextrin complexation in bromine addition to unsymmetrical olefins: evidence for participation of cyclodextrin hydroxyl groups

Manickam C. Durai Manickam, Subramanian Annalakshmi, Kasi Pitchumani\* and Chockalingam Srinivasan

In the cyclodextrin-mediated bromination of styrene and methyl cinnamate, bromohydrin is obtained as major product providing chemical evidence for participation of cyclodextrin hydroxyl groups.

1013

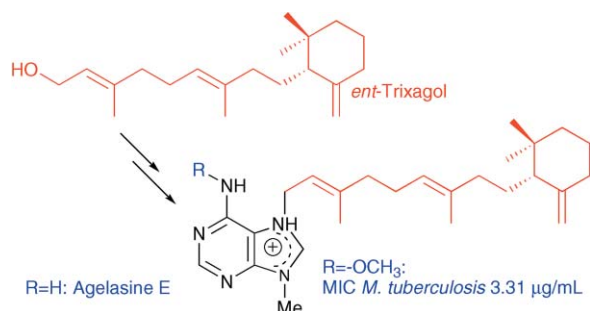


### Synthesis and characterisation of highly emissive and kinetically stable lanthanide complexes suitable for usage 'in cellulo'

Robert A. Poole, Gabriella Bobba, Martin J. Cann, Juan-Carlos Frias, David Parker\* and Robert D. Peacock

Cationic complexes containing a tetraazatriphenylene moiety localise inside the cell nucleus.

1025



### Synthesis and antimycobacterial activity of agelasine E and analogs

Anne Kristin Bakkestuen, Lise-Lotte Gundersen,\* Dirk Petersen, Bibigul T. Utenova and Anders Vik

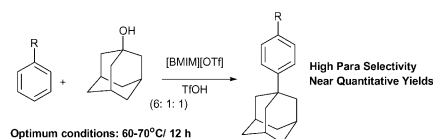
Agelasine E and analogs, many with high antimycobacterial activity, have been synthesized.

1034

### Triflic acid-catalyzed adamantylation of aromatics in [BMIM][OTf] ionic liquid; synthetic scope and mechanistic insight

Kenneth K. Laali,\* Viorel D. Sarca, Takao Okazaki, Aaron Brock and Paul Der

Electrophilic adamantylation of arenes can be carried out conveniently and efficiently in [BMIM][OTf] ionic liquid with TfOH as catalyst; mechanistic and synthetic aspects of this transformation are examined.

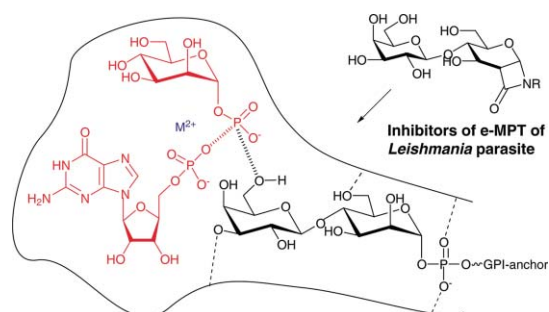


1043

### 1-Oxabicyclic $\beta$ -lactams as new inhibitors of elongating MPT—a key enzyme responsible for assembly of cell-surface phosphoglycans of *Leishmania* parasite

Dipali Ruhela, Patrali Chatterjee and Ram A. Vishwakarma\*

New iminosugars (1-oxabicyclic  $\beta$ -lactam disaccharides) as inhibitors of elongating-MPT, a key enzyme involved in the interactive biosynthesis of cell-surface phosphoglycans of the *Leishmania* parasite, are described.

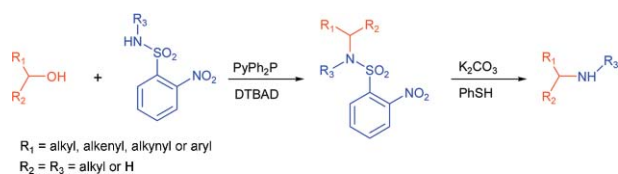


1049

### The facile preparation of primary and secondary amines via an improved Fukuyama–Mitsunobu procedure. Application to the synthesis of a lung-targeted gene delivery agent

Cristina Guisado, Jodie E. Waterhouse, Wayne S. Price, Michael R. Jorgensen\* and Andrew D. Miller\*

Primary and secondary amines have been synthesized via an enhanced Fukuyama–Mitsunobu procedure. This technique was implemented in the synthesis of a complex lung-targeted lipopeptide for gene therapy applications.

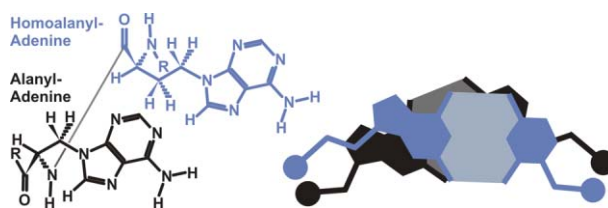


1058

### Side chain homology of alanyl peptide nucleic acids: pairing selectivity and stacking

Ulf Diederichsen,\* Daniel Weicherding and Nicola Diezemann

The influence of side chain homology on pairing selectivity and base pair stacking is investigated using peptide nucleic acids with linear double strand topology.

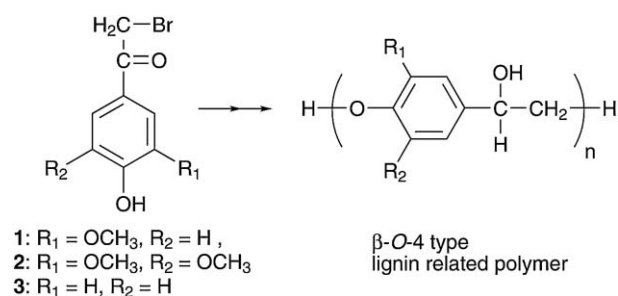


1067

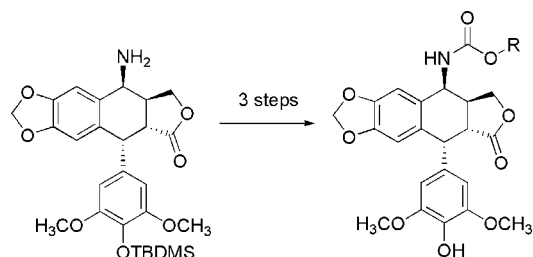
### Easy synthesis of $\beta$ -O-4 type lignin related polymers

Takao Kishimoto,\* Yasumitsu Uraki and Makoto Ubukata

The synthesis of polymers composed of only the  $\beta$ -O-4 structure from simple aromatic compounds as starting materials is described.



1074

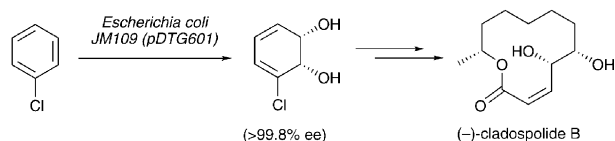


### Novel carbamate derivatives of 4- $\beta$ -amino-4'-*O*-demethyl-4-desoxypodophyllotoxin as inhibitors of topoisomerase II: synthesis and biological evaluation

Maria Duca, Paola B. Arimondo, Stéphane Léonce, Alain Pierré, Bruno Pfeiffer, Claude Monneret and Daniel Dauzonne\*

A novel series of podophyllotoxin derivatives were synthesized, some of which are effective topoisomerase II and display increased cytotoxicity compared to etoposide.

1081

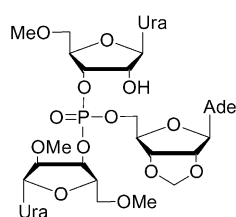


### A chemoenzymatic total synthesis of the undecenolide (-)-cladospolide B via a mid-stage ring-closing metathesis and a late-stage photo-rearrangement of the *E*-isomer

Kerrie A. B. Austin, Martin G. Banwell,\* David T. J. Loong, A. David Rae and Anthony C. Willis

The illustrated and microbially-derived *cis*-1,2-dihydrocatechol has been converted, via a sixteen-step reaction sequence, into the non-natural enantiomer, 2, of cladospolide B.

1089

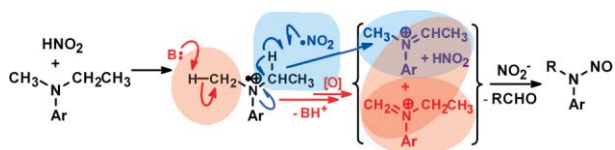


### Hydrolytic stability of 2',3'-*O*-methyleneadenos-5'-yl 2',5'-di-*O*-methylurid-3'-yl 5'-*O*-methylurid-3'(2')-yl phosphate: implications to feasibility of existence of phosphate-branched RNA under physiological conditions

Tuomas Lönnberg,\* Johanna Kiiski and Satu Mikkola

Hydrolytic reactions of a trinucleoside 3',3',5'-monophosphate have been followed over a wide pH range to evaluate the feasibility of occurrence of phosphate-branched RNA under physiological conditions.

1097

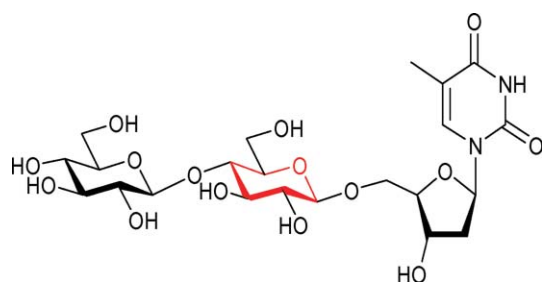


### The mechanistic origin of regiochemical changes in the nitrosative *N*-dealkylation of *N,N*-dialkyl aromatic amines

Emma L. Teuten and Richard N. Loeppky\*

Regioselective H-atom abstraction is preferred in strong acid.

1109



### Synthesis and evaluation of mimetics of UDP and UDP- $\alpha$ -D-galactose, dTDP and dTDP- $\alpha$ -D-glucose with monosaccharides replacing the key pyrophosphate unit

Lluís Ballell, Robert J. Young and Robert A. Field\*

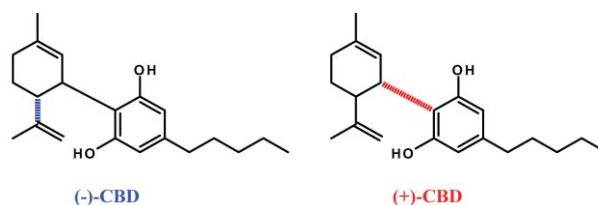
A series of sugar nucleotide mimics based on 5'-*O*-glycosyl-nucleosides were synthesized and evaluated as inhibitors of  $\beta$ -1,4-galactosyltransferase and dTDP- $\alpha$ -D-glucose 4,6-dehydratase.

1116

### Enantiomeric cannabidiol derivatives: synthesis and binding to cannabinoid receptors

Lumír O. Hanuš,\* Susanna Tchilibon, Datta E. Ponde, Aviva Breuer, Ester Fride and Raphael Mechoulam

The syntheses of the major (–)-CBD metabolites and their dimethylheptyl homologs, as well as of the corresponding enantiomeric (+)-CBD compounds are described.

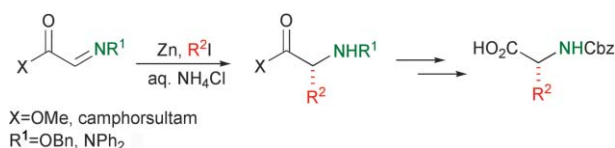


1124

### Zinc-mediated carbon radical addition to glyoxylic imines in aqueous media for the synthesis of $\alpha$ -amino acids

Masafumi Ueda, Hideto Miyabe, Hisako Sugino and Takeaki Naito\*

The zinc-mediated radical reaction of glyoxylic oxime ether and hydrazone in aqueous media proceeded smoothly to give the alkylated products, which could be converted into enantiomerically pure  $\alpha$ -amino acids.

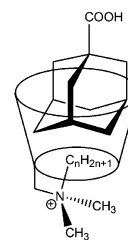


1129

### Evidence of a self-inclusion phenomenon for a new class of mono-substituted alkylammonium- $\beta$ -cyclodextrins

Cécile Binkowski, Frédéric Hapiot,\* Vincent Lequart, Patrick Martin and Eric Monflier

Mono-substituted *N*-alkyl-*N,N*-dimethylammonium- $\beta$ -cyclodextrins exhibit a self-inclusion phenomenon of the alkyl chain inside the CD cavity. The strength of the interaction between the alkyl moiety and the cyclodextrin cavity has been evaluated by a competitive method using an adamantane derivative.

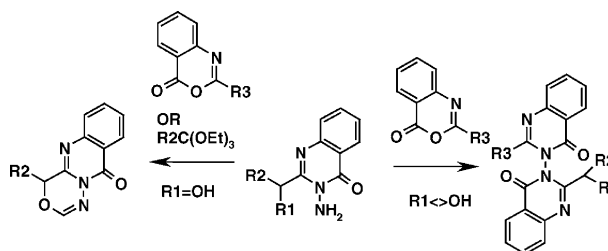


1134

### Synthesis of unsymmetrical 3,3'-biquinazoline-2,2'-diones by condensation of 3-aminoquinazolinones with benzoxazinones; fortuitous discovery, and further syntheses of 4-*H*-3-oxo-1,9a,10-triazaanthracen-9-ones

Michael P. Coogan,\* Li-ling Ooi and Fabrizio Pertusati

Condensation of 2-alkyl- or 2-aryl-3-aminoquinazolin-4-ones with benz[1,3]oxazin-4-ones gives the unsymmetrical 2,2'-disubstituted 3,3'-biquinazoline-4,4'-diones, whereas the 2-(1-hydroxyalkyl) analogues give instead a new heterocycle.



#### FREE E-MAIL ALERTS

Contents lists in advance of publication are available on the web *via* [www.rsc.org/obc](http://www.rsc.org/obc) – or take advantage of our free e-mail alerting service ([www.rsc.org/ej\\_alert](http://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](http://www.rsc.org/ejs) for more information.

**Emerging Area: Synthesis of technomimetic molecules: towards rotation control in single molecular machines and motors**  
Gwénaél Rapenne (DOI: 10.1039/b419282f)

**Communication: Bassianolone: an antimicrobial precursor of cephalosporolides E and F from the entomoparasitic fungus *Beauveria bassiana***

Juan L. Oller-López, María Iranzo Salvador Mormeneo, Eulalia Oliver, Juan M. Cuerva and J. Enrique Oltra (DOI: 10.1039/b417534d)

**Advanced approaches for the characterization of a de novo designed antiparallel coiled coil peptide**

Kevin Pagel, Karsten Seeger, Bettina Seiwert, Alessandra Villa, Alan E. Mark, Stefan Berger and Beate Kokschi (DOI: 10.1039/b418167k)

**Cyclic  $\beta$ -amino acid derivatives: synthesis via lithium amide promoted tandem asymmetric conjugate addition-cyclisation reactions**

Stephen G. Davies, David Díez, Sara H. Dominguez, Narciso M. Garrido, Dennis Kruchinin, Paul D. Price and Andrew D. Smith (DOI: 10.1039/b500223k)

**Ring fission of chiral cyclic acetals plus intramolecular [4 + 2] cycloaddition: a sequential access to medium-size lactones. Application to the synthesis of carbasugars**

Loïc Lemiègre, Richard L. Stevens, Jean-Claude Combret and Jacques Maddaluno (DOI: 10.1039/b419381d)

**New fluorescent probes reveal that flippase-mediated flip-flop of phosphatidylinositol across the endoplasmic reticulum membrane does not depend on the stereochemistry of the lipid**

Ram A. Vishwakarma, Stefanie Vehring, Anuradha Mehta, Archana Sinha, Thomas Pomorski, Andreas Herrmann and Anant K. Menon (DOI: 10.1039/b500300h)

**Preparation of sialylated oligosaccharides employing recombinant *trans*-sialidase from *Trypanosoma cruzi***

Björn Neubacher, Dirk Schmidt, Patrick Ziegelmüller and Joachim Thiem (DOI: 10.1039/b500042d)

**Synthesis of 5'-methyleneasteromycin and its 2-fluoro derivative with potent antimalarial activity due to inhibition of the parasite S-adenosylhomocysteine hydrolase**

Chieko Takagi, Makoto Sueda, Hye-Sook Kim, Yusuke Wataya, Saori Yabe, Yukio Kitade, Akira Matsuda and Satoshi Shuto (DOI: 10.1039/b418829b)

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=xxxxxxx> where xxxxxxxx is replaced by the last eight characters of the DOI (e.g. <http://xlink.rsc.org/?DOI=b417644h>).

## AUTHOR INDEX

- |                                |                                      |                           |                                |
|--------------------------------|--------------------------------------|---------------------------|--------------------------------|
| Annalakshmi, Subramanian, 1008 | Field, Robert A., 1109               | Martin, Patrick, 1129     | Sando, Shinsuke, 1002          |
| Aoyama, Yasuhiro, 1002         | Frias, Juan-Carlos, 1013             | Mechoulam, Raphael, 1116  | Sarca, Viorel D., 1034         |
| Arimondo, Paola B., 1074       | Fride, Ester, 1116                   | Mena-Osteritz, Elena, 985 | Sasaki, Toshinori, 1002        |
| Arribas, Carlos Solano, 996    | Fry, Fiona H., 975                   | Mikkola, Satu, 1089       | Siegel, Jay S., 996            |
| Austin, Kerrie A. B., 1081     | Fuchs, Aliz, 967                     | Miller, Andrew D., 1049   | Srinivasan, Chockalingam, 1008 |
| Bakkestuen, Anne Kristin, 1025 | Guisado, Cristina, 1049              | Miyabe, Hideto, 1124      | Sugino, Hisako, 1124           |
| Ballell, Lluís, 1109           | Gundersen, Lise-Lotte, 1025          | Monflier, Eric, 1129      | Tashino, Yousuke, 970          |
| Banwell, Martin G., 1081       | Gutowski, Nick, 975                  | Monneret, Claude, 1074    | Tasker, Karen M., 975          |
| Bäuerle, Peter, 985            | Halmi, Dóra, 967                     | Müllen, Klaus, 985        | Tchilibon, Susanna, 1116       |
| Binkowski, Cécile, 1129        | Hanuš, Lumír O., 1116                | Naito, Takeaki, 1124      | Teuten, Emma L., 1097          |
| Bobba, Gabriella, 1013         | Hapiot, Frédéric, 1129               | Narita, Atsushi, 1002     | Togo, Hideo, 970               |
| Böjtös, Ildikó, 967            | Hell, Zoltán, 967                    | Ó Dálaigh, Ciarán, 981    | Toy, Patrick H., 970           |
| Bombicz, Petra, 967            | Hergenrother, Paul J., 959           | Okarter, Neal, 975        | Ubukata, Makoto, 1067          |
| Breuer, Aviva, 1116            | Holme, Andrea L., 975                | Okazaki, Takao, 1034      | Ueda, Masafumi, 1124           |
| Brock, Aaron, 1034             | Hynes, Stephen J., 981               | Ooi, Li-ling, 1134        | Uraki, Yasumitsu, 1067         |
| But, Tracy Yuen Sze, 970       | Jacob, Claus, 975                    | Pariagh, Sandra, 975      | Utenova, Bibigul T., 1025      |
| Cann, Martin J., 1013          | Jónsson, Stefán, 996                 | Parker, David, 1013       | Vik, Anders, 1025              |
| Chatterjee, Patrali, 1043      | Jorgensen, Michael R., 1049          | Peacock, Robert D., 1013  | Vishwakarma, Ram A., 1043      |
| Collins, Catriona A., 975      | Kiiski, Johanna, 1089                | Pertusati, Fabrizio, 1134 | Wärnmark, Kenneth, 996         |
| Connon, Stephen J., 981        | Kishimoto, Takao, 1067               | Petersen, Dirk, 1025      | Waterhouse, Jodie E., 1049     |
| Coogan, Michael P., 1134       | Laali, Kenneth K., 1034              | Pfeiffer, Bruno, 1074     | Weicherding, Daniel, 1058      |
| Cremer, Jens, 985              | Léonce, Stéphane, 1074               | Pierré, Alain, 1074       | Wendt, Ola F., 996             |
| Cwik, Agnieszka, 967           | Lequart, Vincent, 1129               | Pitchumani, Kasi, 1008    | White, Jonathan M., 972        |
| Dauzonne, Daniel, 1074         | Loeppky, Richard N., 1097            | Ponde, Datta E., 1116     | Willis, Anthony C., 1081       |
| DeNap, Johna C. B., 959        | Lönnberg, Tuomas, 1089               | Poole, Robert A., 1013    | Wooi, Goh Yit, 972             |
| Der, Paul, 1034                | Loong, David T. J., 1081             | Price, Wayne S., 1049     | Young, Robert J., 1109         |
| Diederichsen, Ulf, 1058        | Maher, Declan J., 981                | Pschierer, Neil G., 985   |                                |
| Diezemann, Nicola, 1058        | Manickam, Manickam C. Durai,<br>1008 | Rae, A. David, 1081       |                                |
| Duca, Maria, 1074              |                                      | Ruhela, Dipali, 1043      |                                |