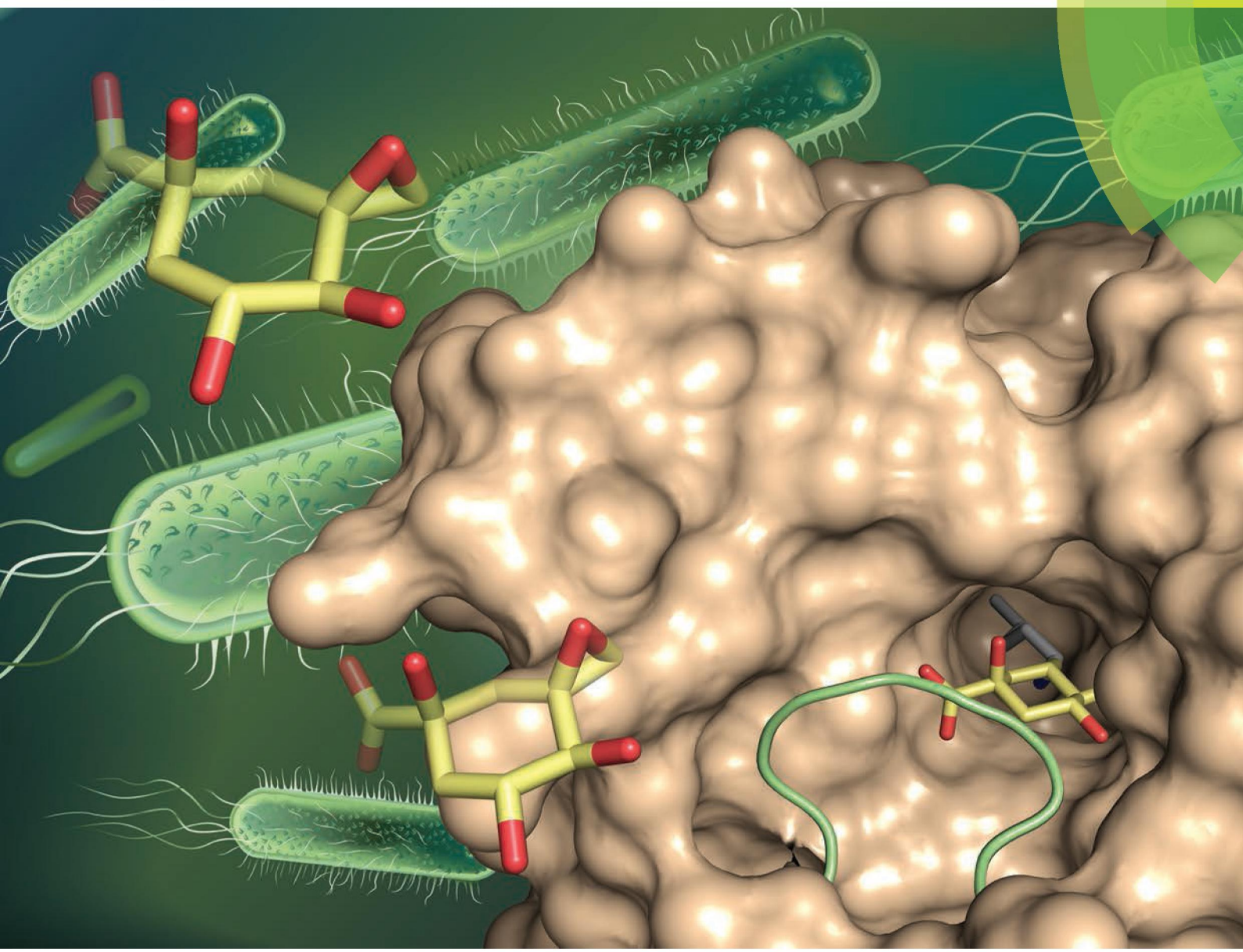
Volume 13 | Number 3 | 21 January 2015 | Pages 633–956

Organic & Biomolecular Chemistry

www.rsc.org/obc



ISSN 1477-0520

ROYAL SOCIETY OF CHEMISTRY

PAPER

Concepción González-Bello *et al.*

Irreversible covalent modification of type I dehydroquinase with a stable Schiff base

Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

Organic & Biomolecular Chemistry

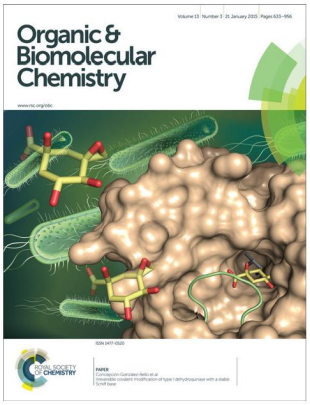
An international journal of synthetic, physical and biomolecular organic chemistry

www.rsc.org/obc

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

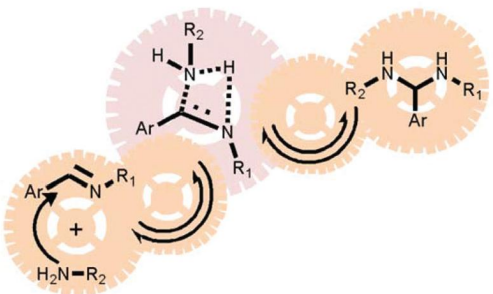
ISSN 1477-0520 CODEN OBCRAK 13(3) 633–956 (2015)

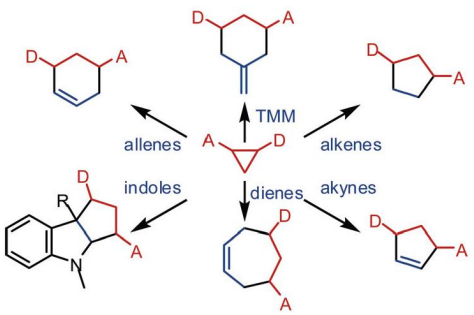


Cover
See Concepción González-Bello *et al.*, pp. 706–716.

Image reproduced by permission of Concepción González-Bello from *Org. Biomol. Chem.*, 2015, **13**, 706.

REVIEWS





View Article Online

Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

Editorial staff

Editor
Richard Kelly

Deputy editor
Marie Cote

Editorial production manager
Helen Saxton

Development editor
James Anson

Publishing editors
Nicola Burton, Zoe Karthauser, Elisa Meschini, Roxane Owen, Simon Rankmore, Donna Smith

Publishing assistants
Emily Finney, Rosalind Searle

Publisher
Emma Wilson

For queries about submitted papers, please contact Helen Saxton, Editorial production manager in the first instance. E-mail: **obc@rsc.org**

For pre-submission queries please contact Richard Kelly, Editor. Email: **obc-rsc@rsc.org**

Organic & Biomolecular Chemistry (print: ISSN 1477-0520; electronic: ISSN 1477-0539) is published 48 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, UK CB4 0WF.

All orders, with cheques made payable to the Royal Society of Chemistry, should be sent to RSC Order Department, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK
Tel +44 (0)1223 432398; E-mail orders@rsc.org

2015 Annual (print+electronic) subscription price: £4572; US$8534. 2015 Annual (electronic) subscription price: £4343; US$8107 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.

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.

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**

MIX
Paper from responsible sources
FSC® C013604

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. Broad in scope, it publishes research and reviews on topics across organic synthesis, physical organic chemistry, supramolecular chemistry and chemical biology.

Editorial board

Chair
Andrei Yudin, University of Toronto, Canada

Associate editors
Margaret Brimble, University of Auckland, New Zealand
Jin-Quan Yu, Scripps Research Institute, La Jolla, CA, USA

Editorial board members
Ashraf Brik, Ben-Gurion University of the Negev, Israel
Pauline Chiu, University of Hong Kong, China
Jonathan Clayden, University of Manchester, UK
Anthony Davis, University of Bristol, UK
Christian Hertweck, Leibniz-Institute Jena, Germany
Kenichiro Itami, Nagoya University, Japan
Qi-Lin Zhou, Nankai University, China

Advisory board

Kyo Han Ahn, Pohang University of Science and Technology, Korea
Fredrik Almqvist, Umeå University, Sweden
Barry Carpenter, Cardiff University, UK
David Chen, Seoul National University, Korea
Shunsuke Chiba, Nanyang Technological University, Singapore
Sheng-Hsien Chiu, National Taiwan University, Chinese Taipei
Luiz Carlos Dias, State University of Campinas, Brazil
Antonio Echavarren, Autonomous University of Madrid, Spain
Jonathan Ellman, Yale University, USA
Margaret Faul, Amgen, USA
Ben Feringa, University of Groningen, The Netherlands
Amar Flood, Indiana University Bloomington, USA
Nobutaka Fujii, Kyoto University, Japan
Carmen Galan, University of Bristol, UK
Sam Gellman, University of Wisconsin, USA
Christian Hackenberger, Free University Berlin, Germany
Mimi Hii, Imperial College London, UK
Krishna Kaliappan, IITB, India
Steven V. Ley, University of Cambridge, UK
Shih-Yuan Liu, University of Oregon, USA
Stephen Loeb, University of Windsor, Canada
David Lupton, Monash University, Australia
Ilan Marek, Israel Institute of Technology, Israel
Keiji Maruoka, Kyoto University, Japan
Cristina Nevado, University of Zürich, Switzerland
Dhevalapally B. Ramachary, University of Hyderabad, India
Viresh Rawal, University of Chicago, USA
Mark Rizzacasa, University of Melbourne, Australia
Richmond Sarpong, University of California, Berkeley, USA
Oliver Seitz, Humboldt University of Berlin, Germany
Jay Siegel, University of Zürich, Switzerland
Tibor Soos, Hungarian Academy of Sciences, Hungary
Corey Stephenson, University of Michigan, USA
Mark Taylor, University of Toronto, Canada
Dirk Trauner, Ludwig-Maximilian University Munich, Germany
Bruce Turnbull, University of Leeds, UK
Georgios Vassilikogiannakis, University of Crete, Greece
Helma Wennemers, University of Basel, Switzerland
Peter Wipf, University of Pittsburgh, USA
Shuli You, Shanghai Institute of Organic Chemistry, China
Li He Zhang, Peking University, China
Jian Zhou, East China Normal University, China

Information for authors

Full details on 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 made via the journal's homepage: http://www.rsc.org/obc.

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.

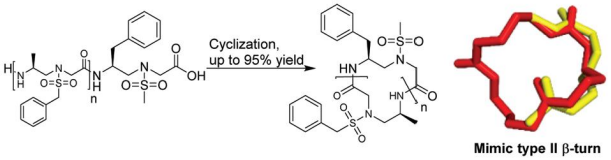
This journal is ©The Royal Society of Chemistry 2015. Apart from fair dealing for the purposes of research or private study for non-commercial purposes, or criticism or review, as permitted under the Copyright, Designs and Patents Act 1988 and the Copyright and Related Rights Regulation 2003, this publication 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.

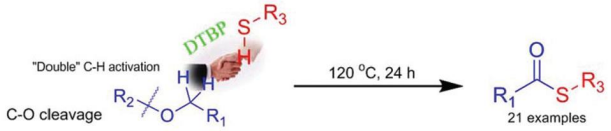
The Royal Society of Chemistry takes reasonable care in the preparation of this publication but does not accept liability for the consequences of any errors or omissions.

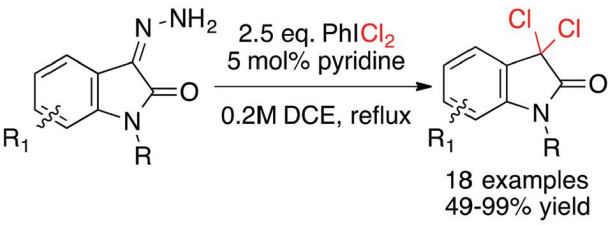
The paper used in this publication meets the requirements of ANSI/NISO Z39.48–1992 (Permanence of Paper).

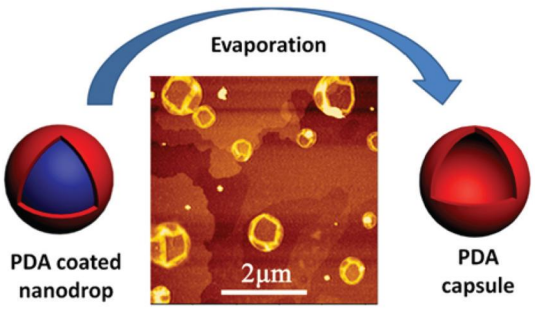
Registered Charity No. 207890.

COMMUNICATIONS







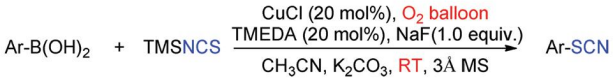


Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

COMMUNICATIONS

691

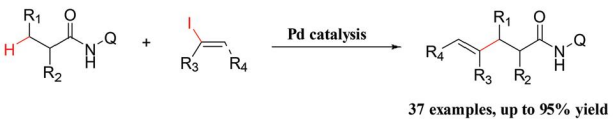


A mild copper-catalyzed aerobic oxidative thiocyanation of arylboronic acids with TMSNCS

Nan Sun,* Liusheng Che, Weimin Mo, Baoxiang Hu, Zhenlu Shen and Xinquan Hu*

A facile and generalized synthesis of aryl thiocyanates has been established *via* the CuCl-catalyzed oxidative coupling of arylboronic acids with TMSNCS. The reaction could be conducted at RT and under an O_2 atmosphere.

697

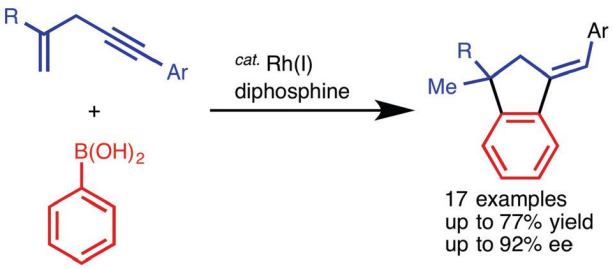


Palladium-catalyzed unactivated β-methylene C(sp^3)–H bond alkenylation of aliphatic amides and its application in a sequential C(sp^3)–H/C(sp^2)–H bond alkenylation

Gang Shan, Guiyi Huang and Yu Rao*

A palladium(II)-catalyzed β-methylene C(sp^3)–H bond alkenylation of acyclic aliphatic amides with alkenyl halides has been developed. Solvent effect-promoted sequential C(sp^3)–H bond alkenylation and C(sp^2)–H bond alkenylation has also been studied.

702



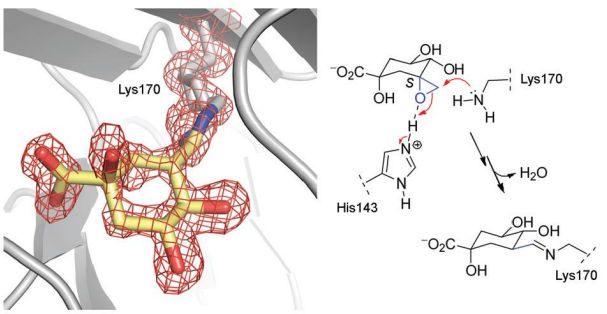
Rhodium-catalysed arylative annulation of 1,4-enynes with arylboronic acids

Takanori Matsuda* and Shoichi Watanuki

Rhodium(I)-catalysed arylative annulation of 1,4-enynes with arylboronic acids affords 1,1-disubstituted 3-(arylmethylene)indanes *via* an addition–1,4-rhodium migration–addition sequence.

PAPERS

706



Irreversible covalent modification of type I dehydroquinase with a stable Schiff base

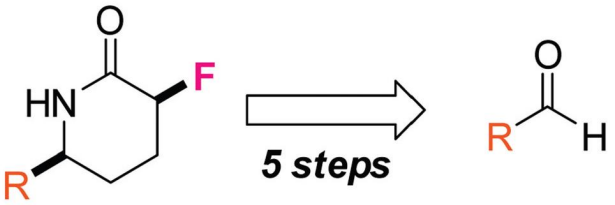
Lorena Tizón, María Maneiro, Antonio Peón, José M. Otero, Emilio Lence, Sergio Poza, Mark J. van Raaij, Paul Thompson, Alastair R. Hawkins and Concepción González-Bello*

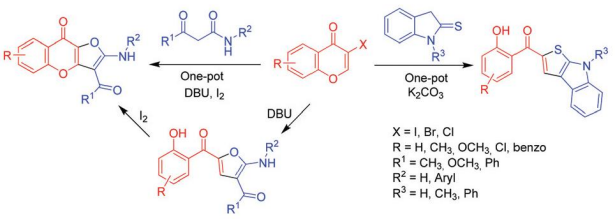
Structural and computational studies carried out with two epoxides provide insight into the irreversible inhibition of type I dehydroquinase.

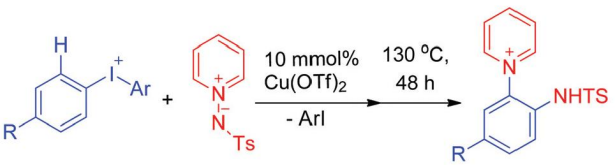
This journal is © The Royal Society of Chemistry 2015

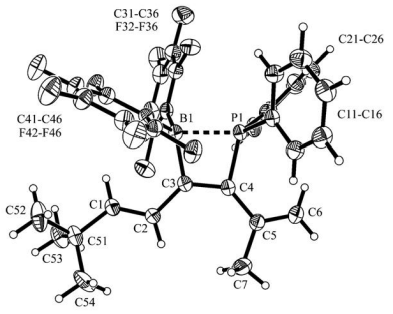
Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

PAPERS









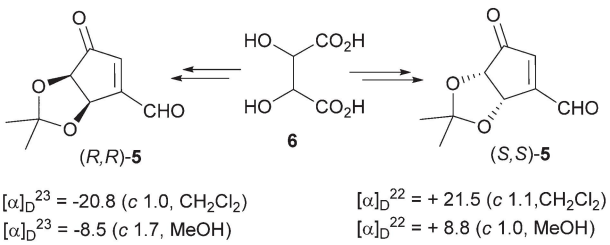
Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

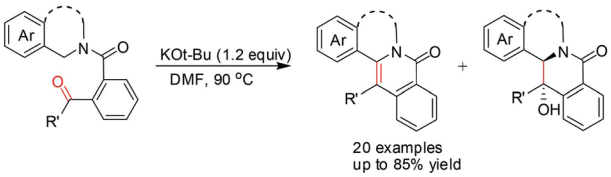
PAPERS

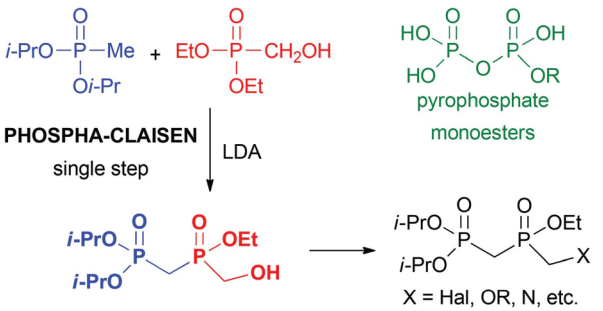
This journal is © The Royal Society of Chemistry 2015

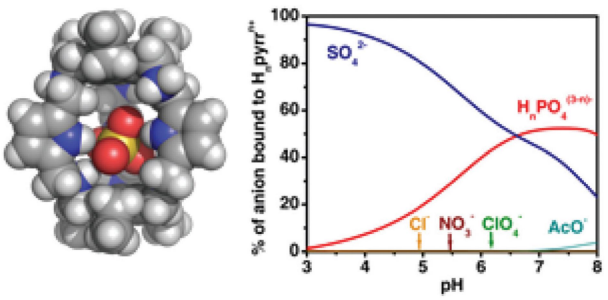
Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

PAPERS







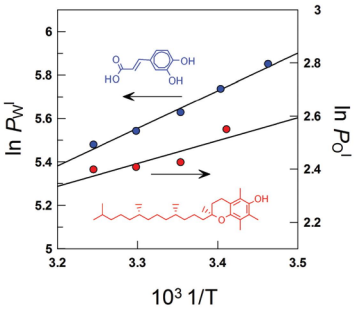


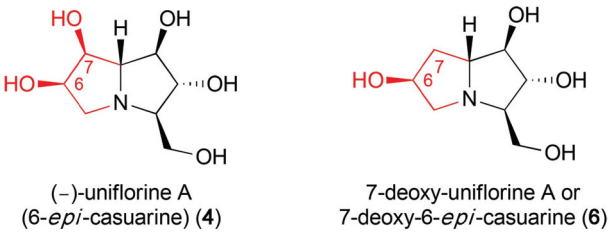
Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

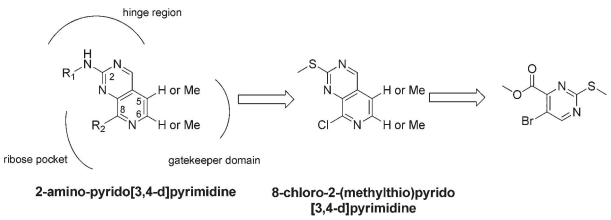
PAPERS

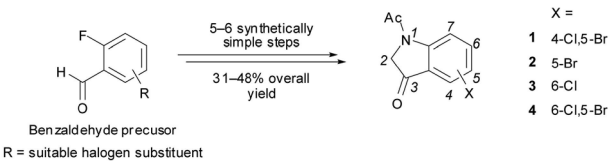
This journal is © The Royal Society of Chemistry 2015

PAPERS









Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

PAPERS

Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.

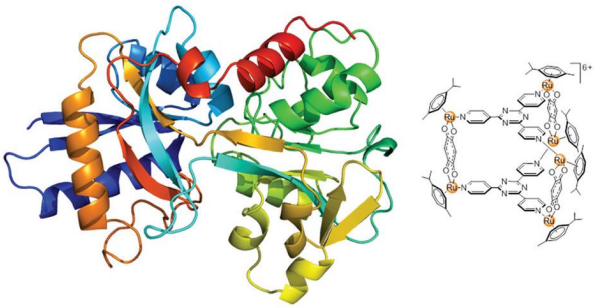
This journal is © The Royal Society of Chemistry 2015

946

Interactions of arene ruthenium metallaprisms with human proteins

Lydia E. H. Paul, Bruno Therrien* and Julien Furrer*

Interactions between three hexacationic arene ruthenium metallaprisms and human proteins have been studied using NMR spectroscopy, mass spectrometry and circular dichroism spectroscopy, showing that proteins are potential biological targets for these metallaprisms.



Published on 17 December 2014. Downloaded on 11/02/2015 11:41:02.