Organic & Biomolecular Chemistry

An international journal of synthetic, physical and biomolecular organic chemistry

rsc.li/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 21(44) 8785-8946 (2023)









Image reproduced by permission of Hiroyoshi Takamura from *Org. Biomol. Chem.*, 2023, **21**, 8837.

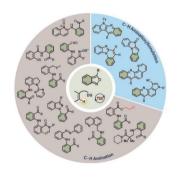


REVIEW

8794

Advances in transition metal-catalyzed C-H amination strategies using anthranils

Yogesh N. Aher, Nilanjan Bhaduri and Amit B. Pawar*



COMMUNICATIONS

8813

Facile access to 5*H*-thiazolo[2',3':2,3]imidazo[4,5-*b*] indole derivatives by two-fold Cu-catalysed C–N coupling reactions

Tran Quang Hung,* Bao Chi Quang Nguyen, Ban Van Phuc, Tien Dat Dang Van, Chu Mai Trang, Quang Thi Kim Anh, Dang Van Do, Hien Nguyen, Quoc Anh Ngo and Tuan Thanh Dang*

Executive Editor Katie Lim **Deputy Editor**

Jack Washington

Development Editor

Editorial Staff

Daniel Robertshaw

Editorial Production Manager Sarah Anthony

Publishing Editors

Nicola Burton, Tom Cozens, Katie Fernandez, Ryan Kean, Roxane Owen

Editorial Assistant

Publishing Assistant

Andrea Whiteside

Publisher

Sam Keltie

For queries about submitted papers, please contact Sarah Anthony, Editorial Production Manager in the first instance. E-mail: obc@rsc.org

For pre-submission queries please contact Katie Lim, Executive Editor. Email: obc-rsc@rsc.org

Organic & Biomolecular Chemistry (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 the Royal Society of Chemistry Order Department, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 OWF, UK

Tel +44 (0)1223 432398; E-mail orders@rsc.org

2023 Annual (electronic) subscription price: £5164; US\$9267. Customers in Canada will be subject to a surcharge to cover GST. Customers in the EU subscribing to the electronic version

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.

Whilst this material has been produced with all due care, the Royal Society of Chemistry cannot be held responsible or liable for its accuracy and completeness, nor for any consequences arising from any errors or the use of the information contained in this publication. The publication of advertisements does not constitute any endorsement by the Royal Society of Chemistry or Authors of any products advertised. The views and opinions advanced by contributors do not necessarily reflect those of the Royal Society of Chemistry which shall not be liable for any resulting loss or damage arising as a result of reliance upon this material. The Royal Society of Chemistry is a charity, registered in England and Wales, Number 207890, and a company incorporated in England by Royal Charter (Registered No. RC000524), registered office: Burlington House, Piccadilly, London W1J 0BA, UK, Telephone: +44 (0) 207 4378 6556.

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

Organic & Biomolecular Chemistry

Rapid publication of high quality organic chemistry research rsc.li/obc

Organic & Biomolecular Chemistry is a weekly journal for the publication of highly significant original research and reviews in all areas of organic chemistry, including organic synthesis, physical organic chemistry, and organic aspects of supramolecular chemistry and chemical

Editorial Board

Anthony Davis, University of Bristol. UK

Associate Editors

Christian Hackenberger, Leibniz-Institut für Molekulare Pharmakologie and Humboldt Universität zu Berlin, Germany Katrina Jolliffe, University of Sydney, Australia

Motomu Kanai, University of Tokyo, Japan

Lei Liu, Tsinghua University, China Xiaohua Liu, Sichuan University, China Santanu Mukherjee, Indian Institute of Science, Bangalore, India Scott Silverman, University of Illinois at Urbana-Champaign, USA

Cristina Truiillo, University of Manchester, UK

Members

Ivan Huc, Ludwig-Maximilian University of Munich, Germany S.S.V Ramasastry, Indian Institute of Science Education and Research Mohali, India Corinna Schindler, University of Michigan,

Judy I-Chia Wu, University of Houston, USA

Advisory Board

Igor Alabugin, Florida State University, USA Gonçalo Bernardes, University of Cambridge,

Shunsuke Chiba, Nanyang Technological University, Singapore Andre Cobb, Kings College London, UK

Steven Cobb, Durham University, UK Ratmir Derda, University of Alberta, Canada Antonio Echavarren, Institute of Chemical Research of Catalonia, Spain Ben Feringa, University of Groningen, The

Amar Flood, Indiana University Bloomington,

Carmen Galan, University of Bristol, UK

Jason Harper, University of New South Wales,

Elizabeth Krenske, University of Queensland, Australia

Mahesh Lakshman, The City College of New York, USA Shih-Yuan Liu, Boston College, USA

Geraldine Masson, Institut de Chimie des Substances Naturelles (CNRS), France Elizabeth New, University of Sydney, Australia Dhevalapally B. Ramachary, University of Hyderabad, India

Paolo Scrimin, University of Padova, Italy Oliver Seitz, Humboldt University of Berlin, Jay Siegel, University of Zürich, Switzerland Corey Stephenson, University of Michigan,

Dean Tantillo, University of California Davis,

Mark Taylor, University of Toronto, Canada Georgios Vassilikogiannakis, University of Crete, Greece

Helma Wennemers, ETH Zürich, Switzerland Peter Wipf, University of Pittsburgh, USA Shuli You, Shanghai Institute of Organic Chemistry, China

Jian Zhou, East China Normal University,

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: rsc.li/obc

Authors may reproduce/republish portions of their published contribution without seeking permission from the Royal Society of Chemistry, 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 2023.

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.

Registered charity number: 207890



COMMUNICATIONS

8819

Metal-free synthesis of α -acyloxy ketones from carboxylic acids and sulfoxonium ylides

Naveen Kumar and Satyendra Kumar Pandey*

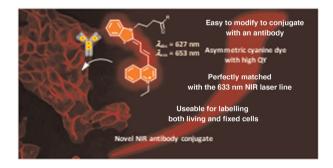
8823

Intracellular Zn(II) induced turn-on fluorescence of an L-phenylalanine-derived pseudopeptide

Arpna Tamrakar, Praveen Kumar, Neha Garg, Santiago V. Luis and Mrituanjay D. Pandey*

Effective synthesis, development and application of a highly fluorescent cyanine dye for antibody conjugation and microscopy imaging

Dénes Szepesi Kovács, Bence Kontra, Balázs Chiovini, Dalma Müller, Estilla Zsófia Tóth, Péter Ábrányi-Balogh, Lucia Wittner, György Várady, Gábor Turczel, Ödön Farkas, Michael C. Owen, Gergely Katona, Balázs Győrffy, György Miklós Keserű,* Zoltán Mucsi,* Balázs J. Rózsa* and Ervin Kovács*



PAPERS

8837

Relative stereochemical determination of the C61-C83 fragment of symbiodinolide using a stereodivergent synthetic approach

Hiroyoshi Takamura,* Kosuke Hattori, Takumi Ohashi, Taichi Otsu and Isao Kadota

PAPERS

36 examples up to 98% yield

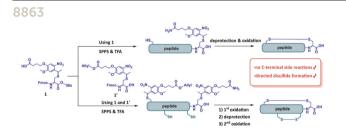
- Simple and mild conditions
- Broad substrate scope
- Without transition metal catalyst
- Gram-scale application

Diethylzinc-promoted carboxylation of aryl/alkenyl boronic acids with CO₂

Tingyu Tang, Shibiao Tang, Bin Li and Baiquan Wang*

Oxa-azabenzobenzocyclooctynes (O-ABCs): heterobiarylcyclooctynes bearing an endocyclic heteroatom

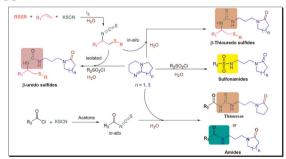
Eshani Das, Mark Aldren M. Feliciano, Pavel Yamanushkin, Xinsong Lin and Brian Gold*



Synthesis of disulfide-rich C-terminal Cys-containing peptide acids through a photocleavable side-chain anchoring strategy

Jie Luo, Yuan Gao, Rui Zhao, Jing Shi* and Yi-Ming Li*

8868



Isothiocyanates (in situ) and sulfonyl chlorides in water for N-functionalization of bicyclic amidines: access to N-alkylated γ -/ ω -lactam derivatized thiourea and sulfonamides

Pankaj Kumar and Aman Bhalla*

PAPERS

8875

AITF (4-acetamidophenyl triflimide) mediated synthesis of amides, peptides and esters

Eti Chetankumar, Swetha Bharamawadeyar, Chinthaginjala Srinivasulu and Vommina V. Sureshbabu*

8883

Nickel-catalyzed mild synthesis of functional γ -amino butyric acid esters *via* direct α -C(sp³)-H allylation of *N*-alkyl anilines with allyl sulfones

He Zhao, Xiu Li and Min Zhang*

8888

Divergent synthesis of 3,4-dihydro-2*H*-benzo[*h*] chromen-2-one and fluorenone derivatives from *ortho*-alkynylarylketones

Jantra Jantrapirom, Nitwaree Palavong, Jumreang Tummatorn,* Charnsak Thongsornkleeb and Somsak Ruchirawat

8902

Serine-mediated hydrazone ligation displaying insulin-like peptides on M13 phage pIII

Yi Wolf Zhang, Nan Zheng and Danny Hung-Chieh Chou*

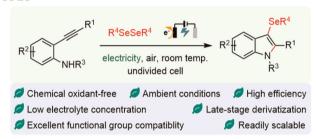
PAPERS

8910

Visible light as a sole requirement for alkylation of α -C(sp³)-H of N-aryltetrahydroisoquinolines with alkylboronic acids

Feihu Cong, Wenjing Zhang, Gan Zhang, Jie Liu,* Yicheng Zhang, Chao Zhou* and Lei Wang

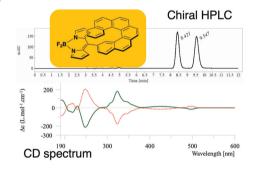
8918



Electrochemical selenocyclization of 2-ethynylanilines with diselenides: facile and efficient access to 3-selenylindoles

Mingyu Zhang, Zhenyu Luo, Xinye Tang, Linmin Yu, Jinglin Pei, Junlei Wang,* Caicai Lu and Binbin Huang*

8924



Porphyrin- and Bodipy-helicene conjugates: syntheses, separation of enantiomers and chiroptical properties

Vincent Silber, Marion Jean, Nicolas Vanthuyne, Natalia Del Rio, Paola Matozzo, Jeanne Crassous* and Romain Ruppert*

8936

A deconstruction—reconstruction strategy to access 1-naphthol derivatives: application to the synthesis of aristolactam scaffolds

Jeong Min Bak, Moonyeong Song, Inji Shin* and Hee Nam Lim*

CORRECTIONS

8942

Correction: An efficient metal free synthesis of 2-aminobenzothiozoles – a greener approach

Krithika Ganesh, Ganesh Sambasivam,* Govindarajulu Gavara, Ramraj S, Gaikwad Rajendra and Sivashanmugam Karthikeyan*

8943

Correction: A facile, one-pot reductive alkylation of aromatic and heteroaromatic amines in aqueous micellar media: a chemoenzymatic approach

Krithika Ganesh, Ganesh Sambasivam* and Sivashanmugam Karthikeyan*