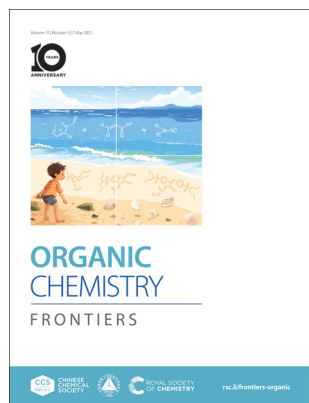


IN THIS ISSUE

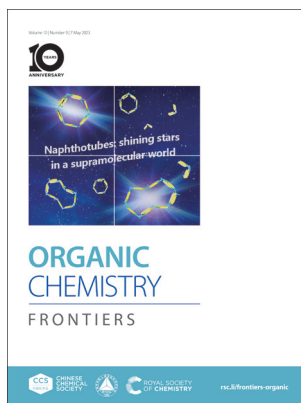
ISSN 2052-4129 CODEN OCFRA8 10(9) 2117-2386 (2023)



Cover

See Xianwei Li *et al.*,
pp. 2128–2137.

Image reproduced by
permission of Xianwei Li from
Org. Chem. Front., 2023, **10**,
2128.



Inside cover

See Miaomiao Yan and
Jiong Zhou,
pp. 2340–2345.

Image reproduced by
permission of Jiong Zhou
and Miaomiao Yan from *Org.
Chem. Front.*, 2023, **10**,
2340.

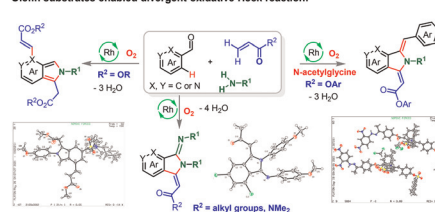
RESEARCH ARTICLES

2128

Ligand-assisted olefin-switched divergent oxidative Heck cascade with molecular oxygen enabled by self-assembled imines

Bairong Liu, Jianhang Rao, Weibing Liu, Yang Gao,
Yanping Huo, Qian Chen and Xianwei Li*

Olefin substrates enabled divergent oxidative Heck reaction:

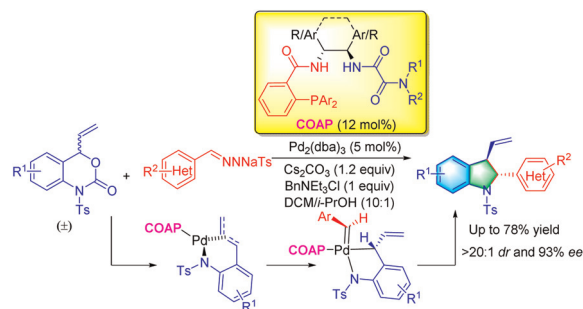


- Key features:**
- Olefins enabled divergent oxidative Heck reaction
 - In situ assembly of directing groups
 - Molecular oxygen as the terminal oxidant
 - Compatible with strongly coordinating N-heterocycles

2138

Chiral oxalamide phosphine (COAP)-Pd-catalyzed enantioselective cascade formal [4 + 1] annulation for enantioenriched 2,3-disubstituted indolines and further DFT study on regio- and stereocontrol

Sheng-Suo Zhou, Jun-Hao Shen, Wen-Kai Liu,
Xing-Yun Sun, Jia-Yu Song, Zheng Wang,*
Zheng-Hang Qi* and Xing-Wang Wang*



EDITORIAL STAFF

Executive Editor

Wenjun Liu

Deputy Editor

Kailin Deng

Development Editor

Cheng Du

Editorial Production Manager

Helen Saxton

Senior Publishing Editor

Becky Webb

Publishing Editors

Kirstine Anderson, Matthew Bown, Laura Cooper, Emily Cuffin-Munday, Hannah Fielding, Clare Fitzgerald, Anoushka Handa, Claire Harding, Alan Holder, Rosie Rothwell, Donna Smith, Laura Smith

Assistant Editors

Jie Gao, Yu Zhang

Publisher

Jeanne Andres

For queries about submitted papers, please contact Helen Saxton, Editorial Production Manager, in the first instance. E-mail: OrgChemFrontiersPROD@rsc.org

For pre-submission queries please contact Wenjun Liu,

Executive Editor. Email: OrgChemFrontiersED@rsc.org

Organic Chemistry Frontiers (electronic: ISSN 2052-4129) is published 24 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK

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

2023 Annual (electronic) subscription price: £2,182; US\$3,492. 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 Royal Society of Chemistry 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 CHEMISTRY

FRONTIERS

An international, high impact journal for cutting-edge researches from all disciplines of organic chemistry.



CHINESE
CHEMICAL
SOCIETY



rsc.li/frontiers-organic

Published in collaboration with the Chinese Chemical Society and Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences

Editorial Board

Editor-in-Chief

Shengming Ma, Shanghai Institute of Organic Chemistry, China

Associate Editors

Arjan W. Kleij, Institute of Chemical Research of Catalonia, Spain
Chulbom Lee, Seoul National University, Korea
Bill Morandi, ETH Zurich, Switzerland

Jennifer M. Schomaker, University of Wisconsin-Madison, USA
Frank Würthner, University of Würzburg, Germany
Pei-Qiang Huang, Xiamen University, China
Qian Zhang, Northeast Normal University, China

Members

Guy Bertrand, University of California, San Diego, USA
Nicolai Cramer, EPFL, Switzerland
Louis Fensterbank, Sorbonne Université, France
Lichang Wang, Southern Illinois University, USA
Dan Yang, Westlake University, China

Advisory Board

Ayyappanpillai Ajayaghosh, National Institute for Interdisciplinary Science and Technology, India
Lutz Ackermann, Georg-August-Universität Göttingen, Germany
Marco Bandini, University of Bologna, Italy
Matthias Beller, University of Rostock, Germany
Akshattu T. Biju, Indian Institute of Science, India
Xi Chen, University of California-Davis, USA
Yiyun Chen, Shanghai Institute of Organic Chemistry, China
Yonggui Robin Chi, Nanyang Technological University, Singapore
Stuart Conway, University of Oxford, UK
Shuanhu Gao, East China Normal University, China
Véronique Gouverneur, University of Oxford, UK

Frank Glorius, Westfälische Wilhelms-Universität Münster, Germany
Zhenhua Gu, University of Science and Technology of China, China
Masayuki Inoue, The University of Tokyo, Japan
Guochen Jia, Hong Kong University of Science & Technology, China
Michael Kerr, University of Western Ontario, Canada
Ohyun Kwon, University of California, Los Angeles, USA
Rai-Shung Liu, National Tsing Hua University, Hsinchu
Sanzhong Luo, Tsinghua University, China
Cristina Nevado, University of Zurich, Switzerland
Christoph Schalley, Freie Universität Berlin, Germany

Daniel Seidel, University of Florida, USA
Feng Shi, Jiangsu Normal University, China
Yan Shi, Colorado State University, USA
Vinod K. Singh, IIT Kanpur, India
Wenjun Tang, Shanghai Institute of Organic Chemistry, China
Yong Tang, Shanghai Institute of Organic Chemistry, China
Chen-Ho Tung, Technical Institute of Physics and Chemistry, CAS, China
Tao Ye, Peking University (Shenzhen), China
Tomoki Ogoshi, Kanazawa University, Japan
Zhaohui Wang, Institute of Chemistry, CAS, China
Lizhu Wu, Technical Institute of Physics and Chemistry, CAS, China
Xingang Zhang, Shanghai Institute of Organic Chemistry, China

Information for Authors

Full details on how to submit material for publication in Organic Chemistry Frontiers 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/frontiers-organic

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 Partner Organisations 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

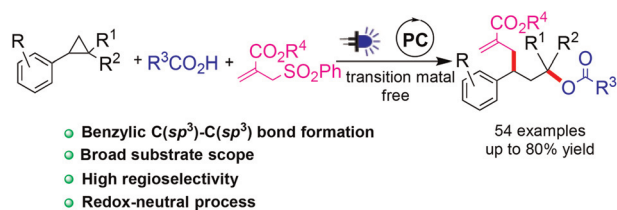


RESEARCH ARTICLES

2147

Visible light mediated regioselective 1,3-oxylallylation of aryl cyclopropanes under redox-neutral conditions

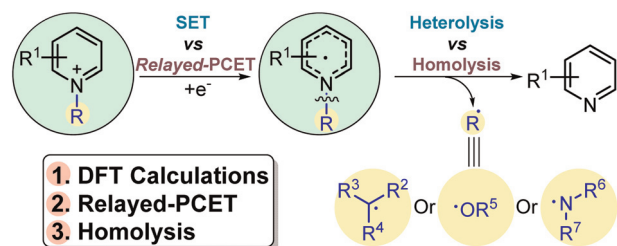
Ding-Xing Wang, Hui Wang, Yao Xu, Chi Zhang* and Chao Feng*



2155

Deaminative radical reactions via relayed proton-coupled electron transfer

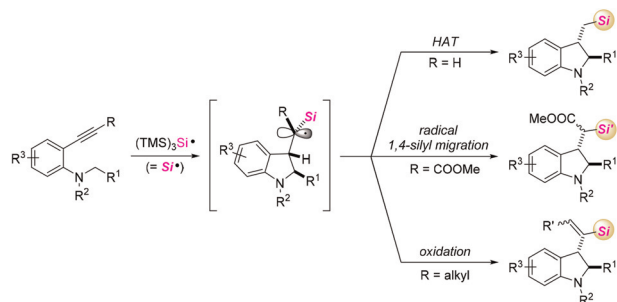
Qianqian Shi, Kuohong Chen, Limin Guo, Lili Han, Donghui Wei* and Yu Lan*



2165

Synthesis of structurally diverse silicon-incorporated indolines via silyl radical-triggered radical cascade reactions

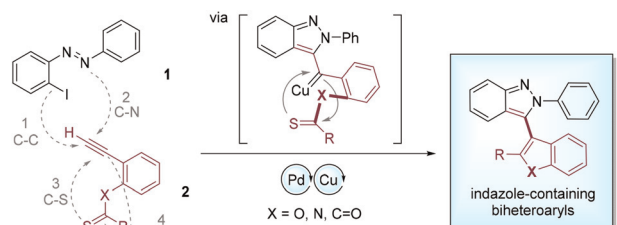
Tian Ye, Jinjin Zhao, Wan-Xin Zheng, Junmin Zhang, Zhijuan Wang* and Feng-Lian Zhang*



2171

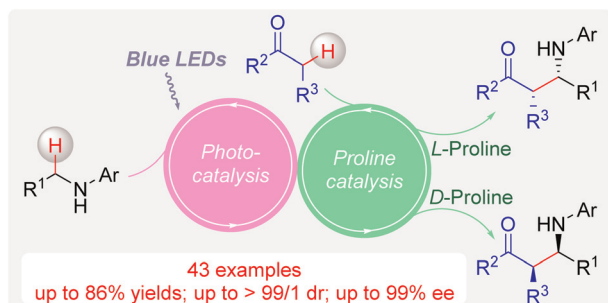
Domino Sonogashira coupling/metal carbene-involved annulation enabled by Pd/Cu relay catalysis: rapid assembly of indazole-containing biheteroaryls

Ruiming Ding, Haili Cui, Yongyan Zhu, Yao Zhou, Huaming Tao* and Shaoyu Mai*



RESEARCH ARTICLES

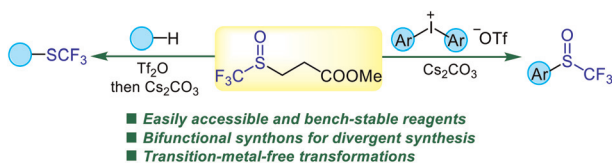
2177



Cooperative photocatalysis and L-/D-proline catalysis enables enantioselective oxidative cross-dehydrogenative coupling of acyclic benzylic secondary amines with ketones

Chao-Jiu Long, Hong-Ping Pu, Ya-Nan Zhao, Yan-Hong He* and Zhi Guan*

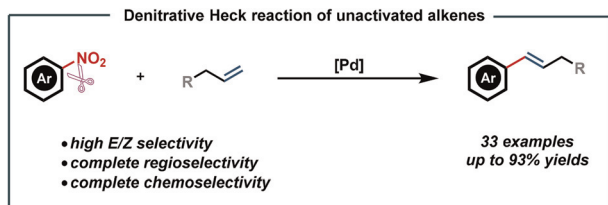
2186



β -Trifluorosulfonyl esters: tuneable reagents for switchable trifluoromethylsulfonylation and C–H trifluoromethylthiolation

Wen Liu, Yan Zhang, Shuya Xing, Huilin Lan, Xinrui Chen, Ying Bai* and Xinxin Shao*

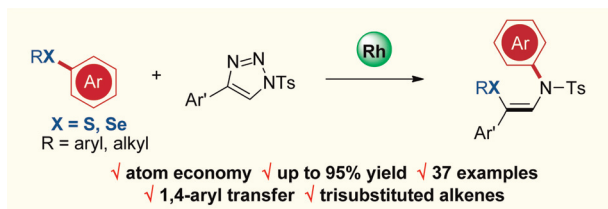
2193



Denitrative Mizoroki–Heck reaction of unactivated alkenes

Fei Zhang, Fei Wang, Yao Zhao, Rizhi Chen and Xiaojin Wu*

2198



A rhodium-catalyzed ylide formation/Smiles rearrangement reaction of chalcogenide ether and triazoles

Jiafeng He, Xun-Shen Liu, Mingjia Li, Shaoting Peng, Zhi-Yao Si and Lu Liu*

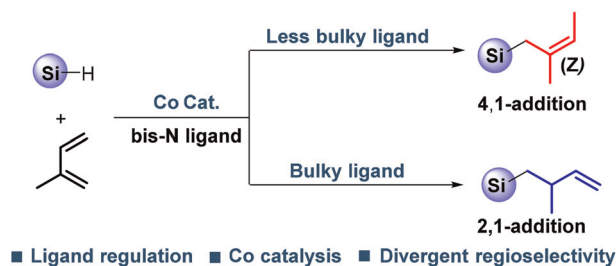


RESEARCH ARTICLES

2204

Ligand-controlled regiodivergence in cobalt-catalyzed hydrosilylation of isoprene

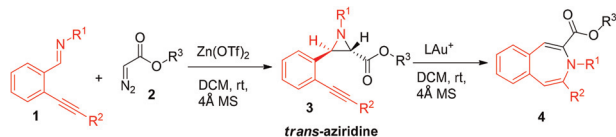
Sa-Na Yang, Chang-Hui Liu, Li-Bowen He, Hao Zheng, Chang-Sheng Kuai,* Boshun Wan, Ding-Wei Ji* and Qing-An Chen*



2211

Relay Zn(II)- and Au(I)-catalyzed aziridination/cyclization/ring expansion sequence to form 3-benzazepine derivatives

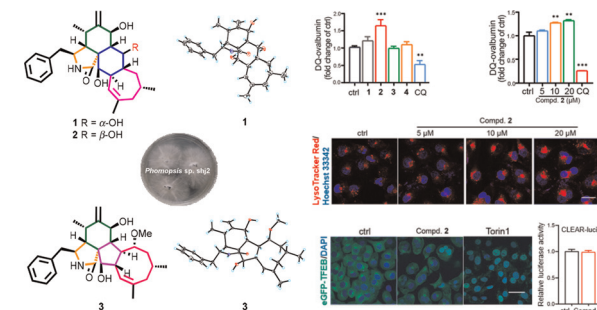
Sudhakar Dattatray Tanpure, Rahul Dadabhau Kardile and Rai-Shung Liu*



2218

Phomopsischalins A–C, polycyclic-fused cytochalasins from the endophytic fungus *Phomopsis* sp. shj2 and their abilities to induce lysosomal function

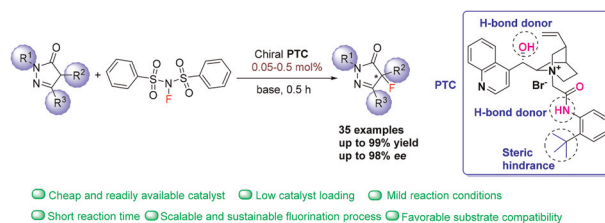
Rong Chen, Li-Jing Guo, Xue-Dan Li, Xing-Ren Li, Kun Hu, Jian-Wei Tang, Zhen-Nan Ye,* Bing-Chao Yan* and Pema-Tenzin Puno*



2226

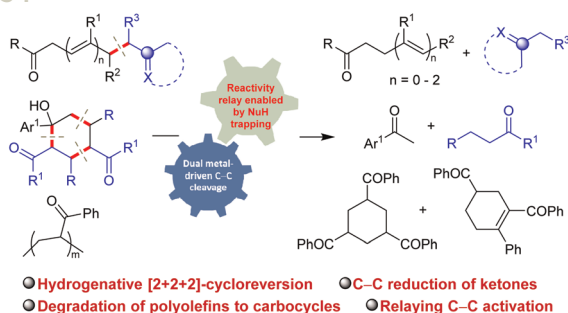
Fast, highly enantioselective, and sustainable fluorination of 4-substituted pyrazolones catalyzed by amide-based phase-transfer catalysts

Yakun Wang,* Shuaifei Wang, Yufeng Wu, Ting Zhao, Jie Liu, Junlin Zheng, Lin Wang, Jieli Lv and Tao Zhang*



RESEARCH ARTICLES

2234

Controllable carbonyl-assisted C(sp³)–C(sp³) bond reduction and reorganization

Shengke Wang, Yitu Wang, Kun Hu, Kai Wang and Xigeng Zhou*

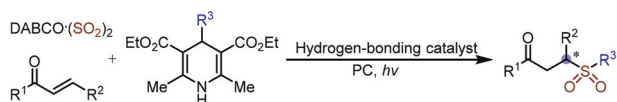
2243



Silver trifluoroacetate as a bifunctional reagent for palladium-catalyzed oxidative carbonylative [4 + 1] annulation of aromatic acids

Zhuang-Zhuang Li, Wan-Di Li, Juan Fan, Jun-Ting Li, Zhong-Wen Liu and Xian-Ying Shi*

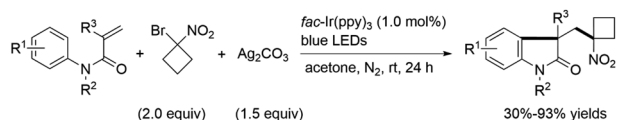
2251



Enantioselective synthesis of chiral sulfones by hydrogen-bonding/organophotoredox co-catalyzed asymmetric sulfonylation

Jian-Qiang Chen, Qiangwei Li, Wenlin Xie and Jie Wu*

2257

*gem*-Bromonitrocyclobutane induced radical cyclization of acrylanilides to construct 2-oxindoles *via* photoredox catalysis

Yawen Guo, Shanshan Ma, Lin Shi, Lidong Liu, Xingyu Lei and Peng Jiao*

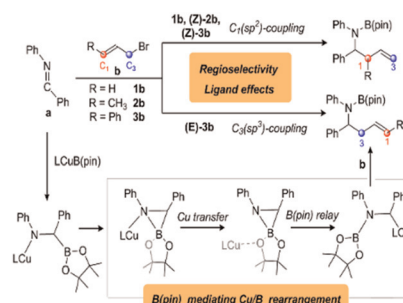


RESEARCH ARTICLES

2263

An umpolung mechanism of B(pin)-mediated Cu/B rearrangement and origin of regioselectivity for NHC-Cu-catalyzed allylation of imines

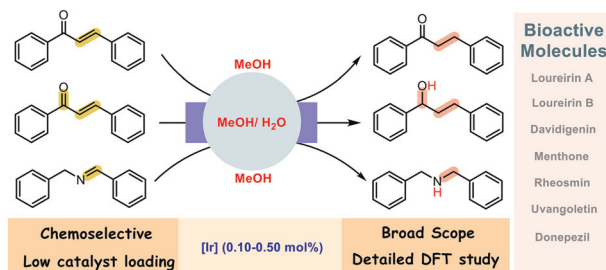
Xinhua Jia, Qiong Wang,* Jianbiao Liu, Wenjuan Wang, Chuanzhi Sun, Fang Huang, Chong Yang and Dezhan Chen*



2274

Utilization of methanol for condensation interrupted chemoselective transfer hydrogenation of C=C, C=O, and C=N bonds under low catalyst loading

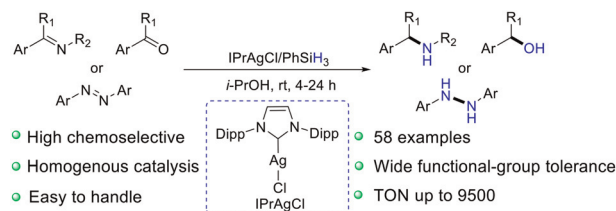
Anirban Sau, Divya Mahapatra, Sadhan Dey, Dibyajyoti Panja, Saghnik Saha and Sabuj Kundu*



2287

Chemoselective reduction of imines and azobenzenes catalyzed by silver N-heterocyclic carbene complexes

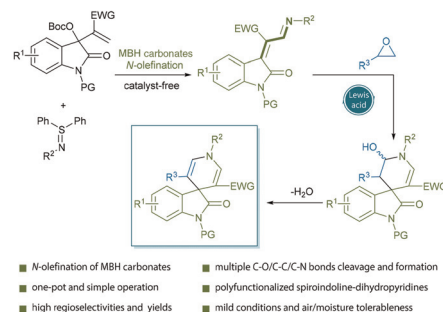
Bo Han,* Hongmei Jiao, Rong Chen, Yuqi Zhang* and Jijiang Wang



2294

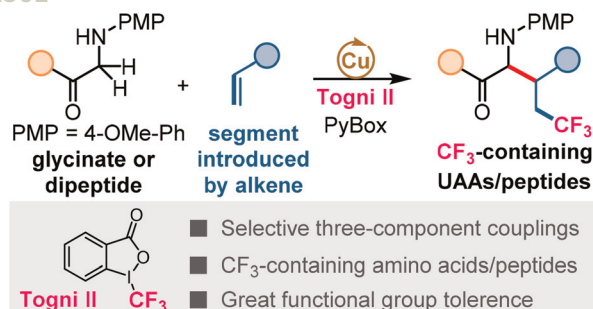
A Sc(OTf)₃-catalyzed one-pot two-step approach for spiro-oxindole dihydropyridine derivatives initiated by N-olefination of MBH carbonates

Zhen-Hui Yan, Run Lu, Cheng Peng,* Jie Tang, Huaying Fang, Gu Zhan, Xiang-Hong He* and Wei Huang*



RESEARCH ARTICLES

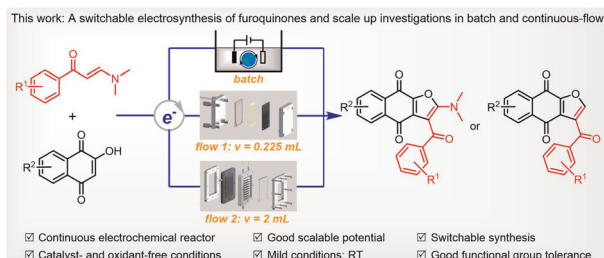
2301



Cu-catalysed three-component C–H trifluoroalkylation of glycine derivatives: access to diverse CF_3 -containing amino acids

Yadong Li, Dengfu Lu* and Yuefa Gong*

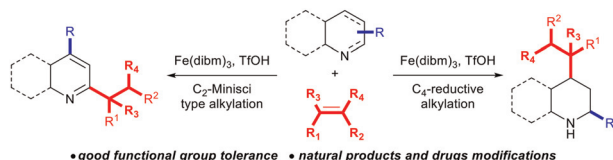
2310



Switchable electrochemical synthesis of furoquinones in batch and continuous-flow modes

Chengcheng Yuan, Xiangxing Huang, Yaqi Qiao, Wenjing Guan, Chengkou Liu,* Zheng Fang, Yuguang Li and Kai Guo

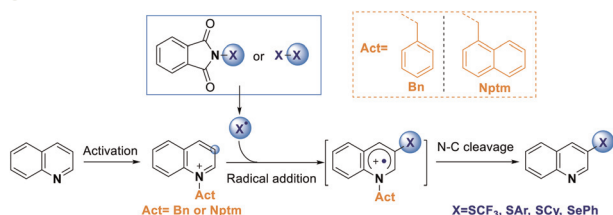
2318



Iron-mediated divergent reductive coupling reactions of heteroarenes with alkenes

Cong Zhang, Yuhang He and Guanghui An*

2324



C3-selective C–H thiolation of quinolines via an N-arylmethyl activation strategy

Shun Li, Juan Tang, Yi-Hua Fu, Xue-Li Zheng, Mao-Lin Yuan, Rui-Xiang Li, Zhi-Shan Su, Hai-Yan Fu* and Hua Chen*

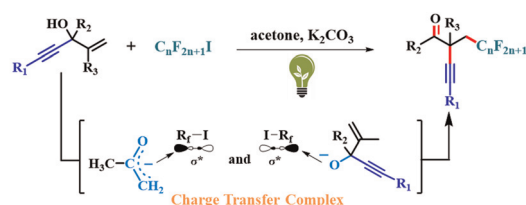


RESEARCH ARTICLES

2332

Photochemical alkynylperfluoroalkylation of unactive alkenes mediated by halogen-bonded charge-transfer complexes

Huangbin Sun, Chang Huang, Xueting Bin, Fuzhi Cui and Guofang Jiang*



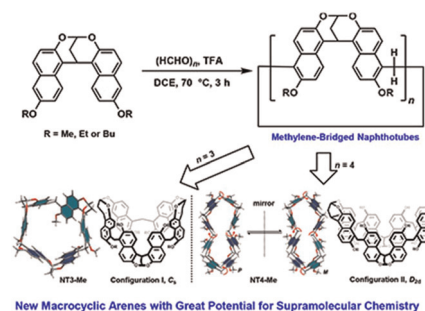
- Transition-metal and photocatalyst free
- General: 31 examples, up to 90% yield
- Mild reaction conditions
- No ligand and additive

HIGHLIGHT

2340

Methylene-bridged naphthotubes: new macrocyclic arenes with great potential for supramolecular chemistry

Miaomiao Yan and Jiong Zhou*



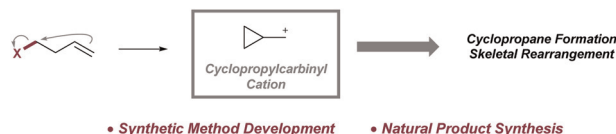
New Macrocyclic Arenes with Great Potential for Supramolecular Chemistry

REVIEWS

2346

Cyclopropylcarbiny cation chemistry in synthetic method development and natural product synthesis: cyclopropane formation and skeletal rearrangement

Jiaxin Xie and Guangbin Dong*



2359

Gold-catalyzed multicomponent reactions

Akash G. Tathe, Sagar S. Saswade and Nitin T. Patil*

