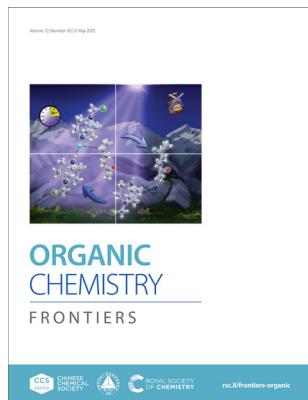


IN THIS ISSUE

ISSN 2052-4129 CODEN OCFRA8 12(10) 3147–3314 (2025)

**Cover**

See Shahboz Yakubov and Joshua P. Barham,
pp. 3156–3162.

Image reproduced
by permission of
Joshua P. Barham
from *Org. Chem. Front.*,
2025, **12**, 3156.

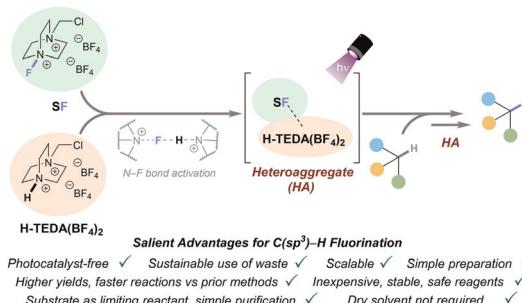
Image created by
Sarah S. Coutts.

RESEARCH ARTICLES

3156

Protoprodefluorinated Selectfluor® heteroaggregate photoinduces direct C(sp³)–H fluorinations without photocatalyst

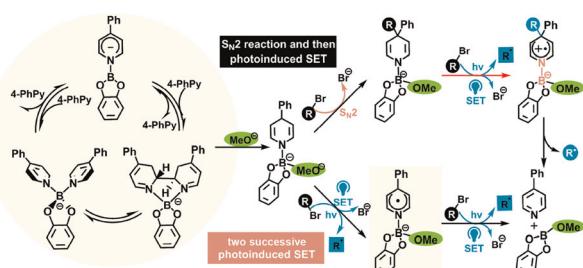
Shahboz Yakubov and Joshua P. Barham*



3163

A DFT investigation of the mechanism of photoinduced radical borylation of alkyl bromides: elucidation of base-mediated photoinduced SET and S_N2 processes

Nana Ma,* Qiongjin Wang, Die Zhao, Bowen Duan,
Shujun Li* and Guisheng Zhang*



RSC Applied Interfaces

GOLD
OPEN
ACCESS

Interfacial and surface research
with an applied focus

Interdisciplinary and open access

rsc.li/RSCApplInter

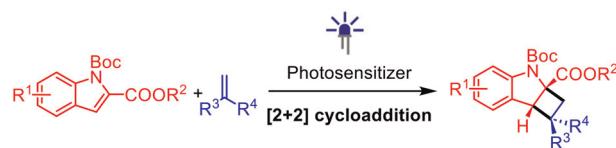
Fundamental questions
Elemental answers

RESEARCH ARTICLES

3177

Photocatalytic intermolecular [2 + 2] cycloaddition/dearomatization of indoles: easy access to cyclobutane-fused indolines

Zeng Han, Lianhui Wang, Yuanqi Luo and Xiuling Cui*



- More than 50 examples
- Mild reaction conditions and metal free photocatalyst
- High chemo-, regio-, and stereoselectivity
- Excellent atom economy and step economy

3184

A copper-catalyzed enantioselective cycloaddition/amination cascade of azomethine imines, alkynes and O-benzoylhydroxylamines

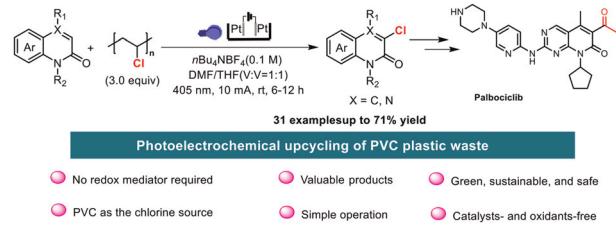
Tai-Gang Fan, Bo-Xun Sun, Wei Jiang, Jia Hu, Li-Bo Yang, Yuan Qu and Ya-Min Li*



3191

Photoelectrochemical upcycling of PVC plastic waste for the synthesis of chlorinated quinolinone derivatives

Kai Zheng, Jingwen He, Lixi Zhang, Zhaoyang Wang, Pengfei Zhang, Jianyu Cao* and Chao Shen*



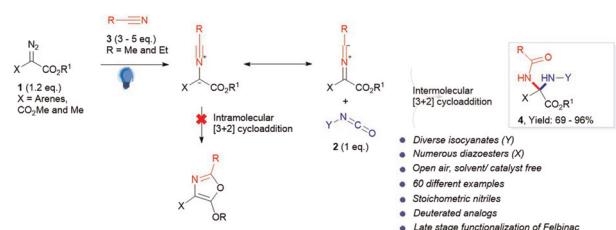
Photoelectrochemical upcycling of PVC plastic waste

- No redox mediator required
- Valuable products
- Green, sustainable, and safe
- PVC as the chlorine source
- Simple operation
- Catalysts- and oxidants-free

3198

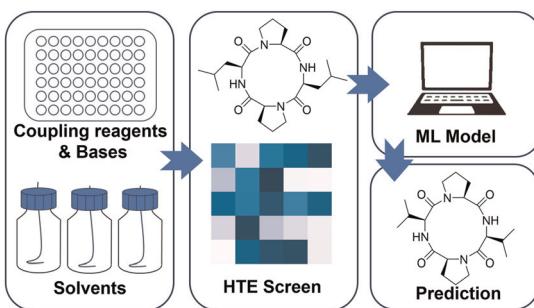
Interrupted intramolecular [3 + 2] to 5-endo-dig cyclization: [3 + 2] cycloaddition of nitrile ylides of diazo esters: photo-induced solvent-free gem-diamination to synthesize α -amino- α -substituted α -amino esters

Haya Khan, Yashika Tyagi, Roopam Pandey, Pranoy Menon and Subhabrata Sen*



RESEARCH ARTICLES

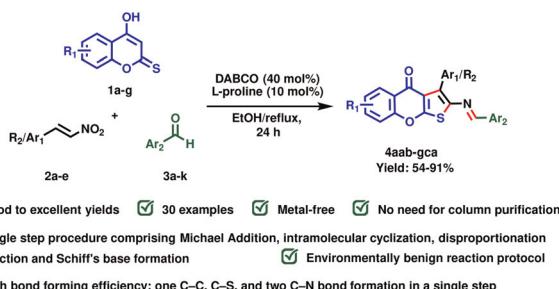
3208



Synthesis of challenging cyclic tetrapeptides using machine learning-assisted high-throughput continuous flow technology

Chaoyi Li, Jiaiping Yu, Wanchen Li, Jingyuan Liao, Junrong Huang, Jiaying Liu, Wei Zhao, Yinghe Zhang,* Yuxiang Zhu* and Hengzhi You*

3215



A regioselective and sustainable approach for the synthesis of substituted thieno[2,3-b]chromen-4-ones with pendant imine groups via a base-promoted multicomponent reaction

Ujjwal Jyoti Goswami, Anjela Xalxo and Abu Taleb Khan*

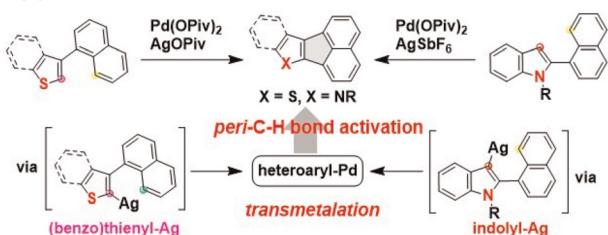
3223



Stereoselective synthesis of allylic sulfones via palladium-catalyzed hydrosulfonylation of cyclopropenes

Suliang Wang, Xuening Li, Jian Song* and Xianjie Fang*

3230



Pd-catalyzed site-specific heteroaromatic C-H/peri-C-H annulative coupling for synthesis of cyclopenta-fused polycyclic heteroarenes

Tienan Jin,* Masaki Kawata, Sho Aida and Masahiro Terada

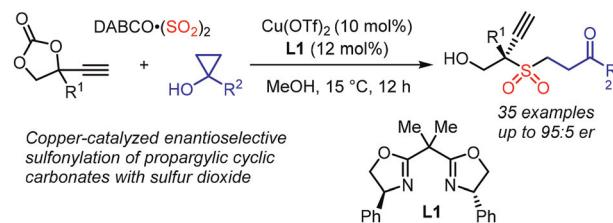


RESEARCH ARTICLES

3239

Copper-catalyzed enantioselective sulfonylation from sulfur dioxide: generation of tertiary propargylic sulfones

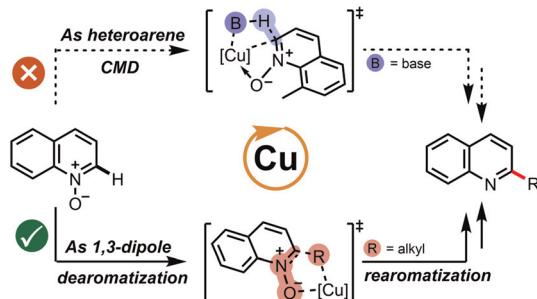
Chen Guo, Jiapian Huang, Shengqing Ye,* Min Yang* and Jie Wu*



3246

Dearomatization/rearomatization model for copper-mediated quinoline N-oxide C–H functionalization

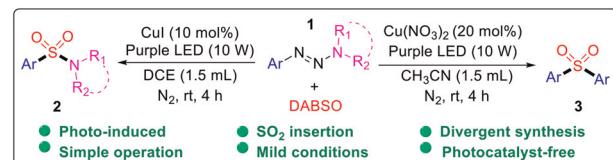
Wenxuan Lin, Wei Lai, Lei Xu, Xin Dai, Lin Zhang, Xiaoqian He,* Li-Li Liao,* Yu Lan* and Ruopeng Bai*



3256

Photo-induced copper-catalyzed controllable denitrogenation/SO₂ insertion of aryltriazenes: divergent synthesis of aryl sulfonamides and diaryl sulfones

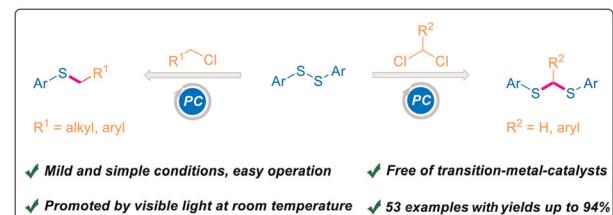
Bin Wang,* Chenglong Wang, Tingting Zhang, Ziren Chen, Yu Xia, Shaofeng Wu, Yonghong Zhang* and Chenjiang Liu*



3264

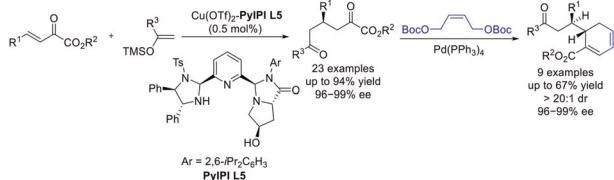
Metal-free photoredox catalyzed formation of S–C–S and C–S bonds through coupling of diaryl sulfides/benzyl chlorides with dichloromethyl derivatives

Chun-Hong Long, Hang Cai, Yuan Sun, Zhao-Nan Cai* and Hong-Bo Qin*

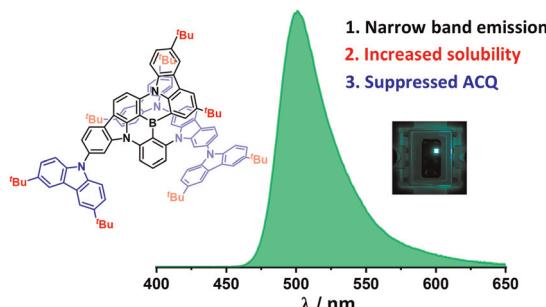


RESEARCH ARTICLES

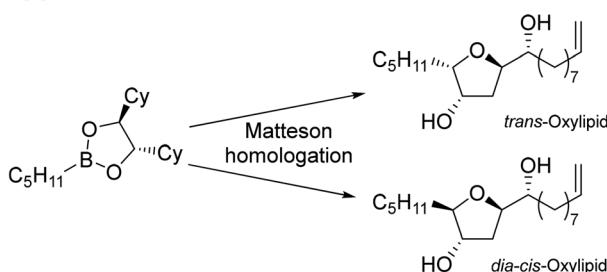
3271

**Cu(II)-catalyzed asymmetric Mukaiyama–Michael reaction: concise synthesis of cyclohexadiene analogues**Ning Li, Jun-Hao Zhang, Wei-Jing Yang,
Ming-Sheng Xie* and Hai-Ming Guo*

3279

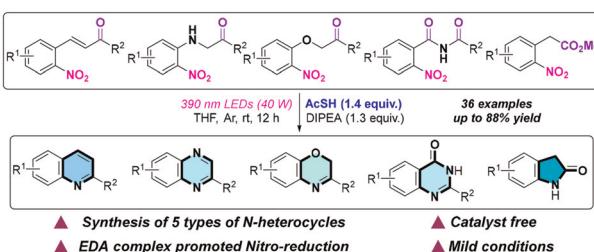
**A multi-resonant thermally activated delayed fluorescence emitter with a twisted second-generation carbazole dendron showing suppressed concentration quenching and its use in solution-processed organic light-emitting diodes**Jingxiang Wang, Yuka Yasuda, Yongxia Ren, Ryo Kondo,
David B. Cordes, Hironori Kaji* and Eli Zysman-Colman*

3288

**Synthesis of oxylipids via a boronic ester cycloetherification approach**

Markus Tost and Uli Kazmaier*

3293

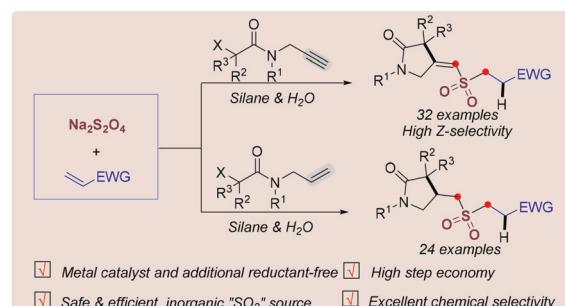
**Photoinduced reductive cyclization of 2-nitroaryl-tethered carbonyl compounds: an approach for accessing nitrogen-fused heterocycles**Yulong Du, Yuhui Wu, Jiarui Tang, Jianhui Chen,*
Yanshu Luo and Yuanzhi Xia*

RESEARCH ARTICLES

3299

Radical-mediated sulfonylation relay of alkyl alkynes/alkenes and electron-deficient alkenes to access vinyl and alkyl sulfones

Jin-Hui Liu, Fang Long, Qing Li, Da-Zhi Sun, Ying Man, Lin Wang, Li-Jun Wu* and Shuang-Feng Yin*



3306

Highly efficient low-valence tungsten-catalyzed deoxygenative reduction of tertiary amides to amines with pinacolborane

Biao Cheng,* Jialong Xv, Xiang Ren, Yuanyuan Li, Xiaoming Ji and Zhan Lu*

