

IN THIS ISSUE

ISSN 1359–7345 CODEN CHCOFS 61(34) 6201–6380 (2025)



Cover

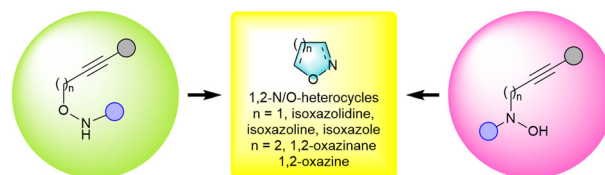
See Christophe Werlé, Alexandre Vasseur *et al.*, pp. 6296–6299. Image reproduced by permission of Christophe Werlé from *Chem. Commun.*, 2025, 61, 6296.

HIGHLIGHTS

6212

Alkynyl hydroxylamines: key precursors for 1,2-N/O heterocycles

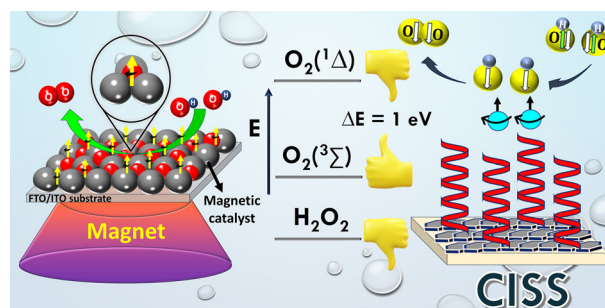
Santosh J. Gharpure,* Juhi Pal and Kaushik C. Pansuriya



6226

Spin-controlled electrocatalysis: an out-of-the-box strategy for the advancement of electrochemical water splitting

Dibyendu Barik, Utkarsh Utkarsh and Koyel Banerjee Ghosh*



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FEATURE ARTICLES

6246

Harnessing chemistry for plant-like machines: from soft robotics to energy harvesting in the phytosphere

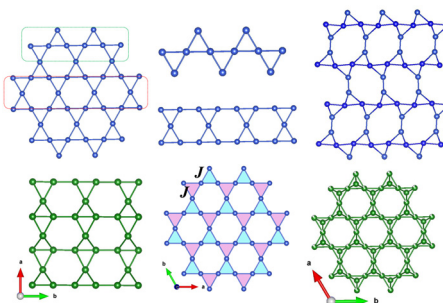
Isabella Fiorello,* Yuanquan Liu, Behnam Kamare and Fabian Meder*



6260

Kagomé lattice compounds and their related systems

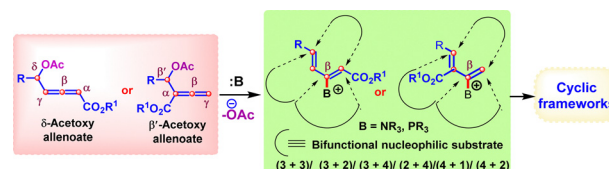
Zhangzhen He



6275

Acetoxy allenates as emerging synthons in annulation/cycloaddition reactions

K. C. Kumara Swamy,* Sachin Chauhan and A. Sanjeeva Kumar

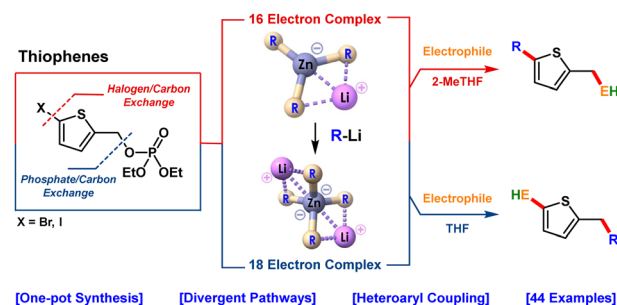


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6296

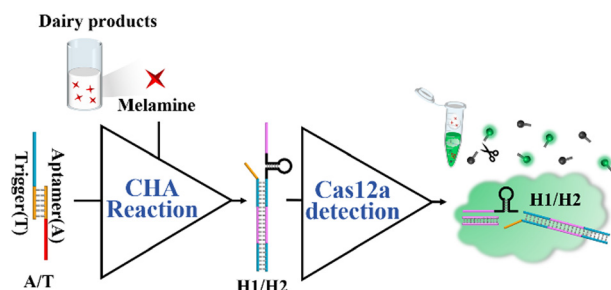
Lithium zincate-enabled divergent one-pot dual C–C bond formation in thiophenes

Alexandre Pierret, Kevin Magra, Hugo Lopez, Thomas Kauffmann, Clément Denhez, Ibrahim Abdellah, Christophe Werlé* and Alexandre Vasseur*



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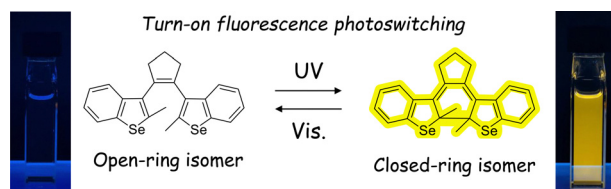
6300



Catalytic hairpin assembly-coupled CRISPR/Cas12a biosensor for sensitive detection of melamine in dairy products

Hui-Juan Cheng, Yue Liu, Hua-Dong Li, Bin-Cheng Yin, Pei-Qiang Ma* and Bang-Ce Ye

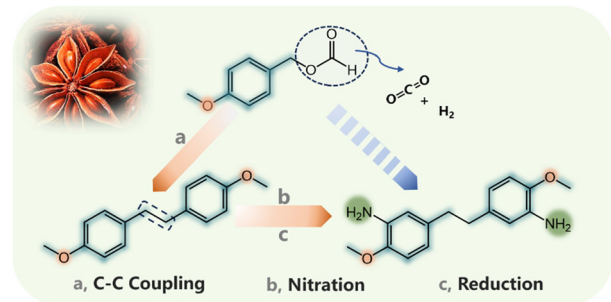
6304



Synthesis and photochromism of a *turn-on* fluorescent diarylethene having benzo[*b*]selenophene groups as the aryl units

Yoshiyuki Watanabe, Sunnam Kim, Daisuke Kosumi, Daichi Kitagawa, Seiya Kobatake and Tsuyoshi Fukaminato*

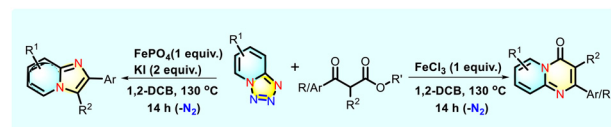
6308



The decarboxylative and dehydrogenative coupling of formate: from anisyl formate to a high value-added diamine

Yichao Wang, Hongchen Cao, Shiwen Yang, Leilei Zhang,* Rui Wang, Aiqin Wang* and Tao Zhang*

6312



Access to pyrido-pyrimidinone and imidazopyridine via Fe(III)-mediated denitrogenative annulation of tetrazolopyridine with β -keto ester

Asikul Sk and Biswadip Banerji*

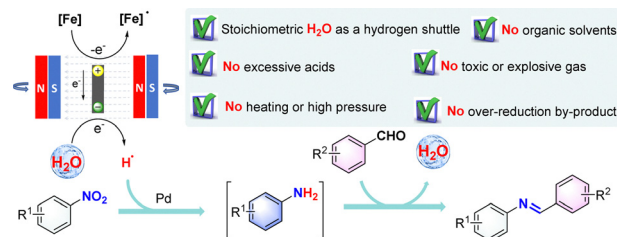


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Pd-catalyzed imine synthesis from nitroarenes via Fe–H₂O under electromagnetic milling

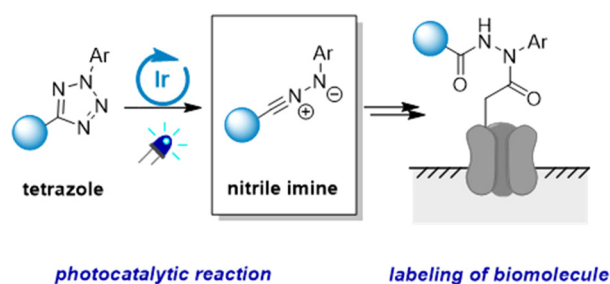
Xiangming Lu, Feng Zhang, Fachao Yan, Qing Liu, Yan Zhao,* Mengcheng Du,* Lizhi Zhang,* Xinjin Li, Zengdian Zhao and Hui Liu*



6320

Visible light-mediated photocatalytic coupling between tetrazoles and carboxylic acids for biomolecule labelling

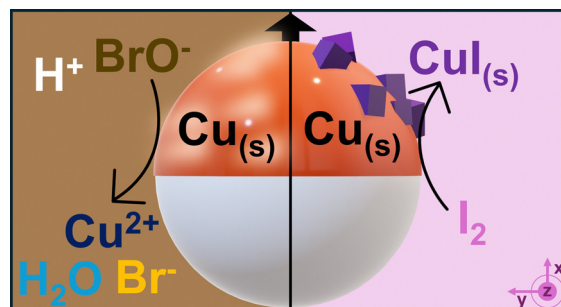
Takuro Matsuoka, Ryosuke Takasaki, Hiroki Akiba, Kosuke Ogata, Akira Hattori, Norihito Arichi, Hideaki Kakeya, Sho Yamasaki, Yasushi Ishihama, Hiroaki Ohno* and Shinsuke Inuki*



6324

Halogen–copper redox chemistry as a driving force for spherical Janus microswimmers

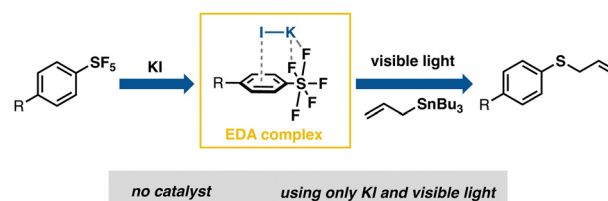
Kelly Henze, Zuyao Xiao, Khalifa Mohamed and Juliane Simmchen*



6328

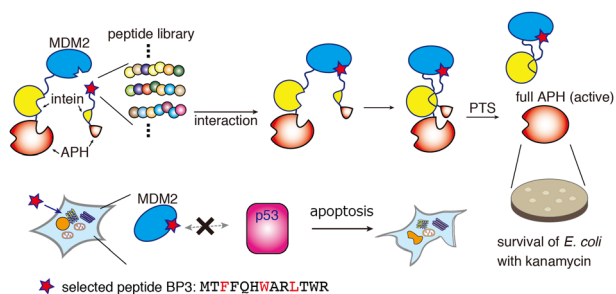
Electron donor–acceptor (EDA) complex mediated visible-light driven sulfur–fluorine bond reduction of pentafluorosulfonyl arenes using potassium iodide

Tatsuhiro Uchikura, Fua Akutsu and Takahiko Akiyama*



COMMUNICATIONS

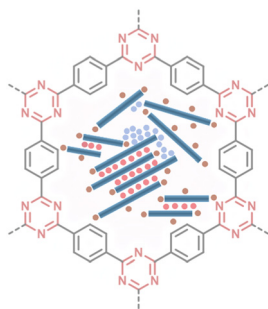
6332



Selection of MDM2-binding peptides in *Escherichia coli* using an engineered split intein and aminoglycoside phosphotransferase

Yutaro Watanabe, Chiori Tezuka, Kana Nobusawa and Tsuyoshi Takahashi*

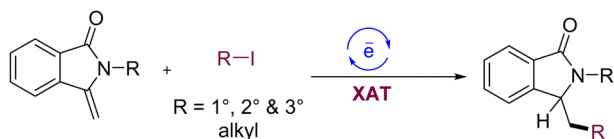
6336



Unveiling Li⁺ storage behaviors in two-dimensional organic frameworks through an “adsorption–intercalation–adsorption/filling” mechanism

Lina Zhong, Wenlu Sun, Luting Xie, Lei Fang, Hui Zhang, Huabin Kong, Zhilong Quan,* Lifeng Cai and Hongwei Chen*

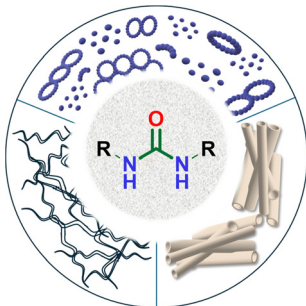
6340



Photocatalytic hydroalkylation of 3-methyleneisoindolin-1-ones with unactivated alkyl iodides

Abhishek Kumar, Shrutheka G. S. and Veera Reddy Yatham*

6344



Simple toroids to multi-torus structures from self-assembling peptides

Souvik Dutta and V. Haridas*

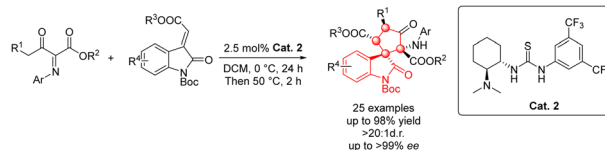


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Synthesis of enantioenriched spirocyclic oxindoles catalyzed by bifunctional thiourea

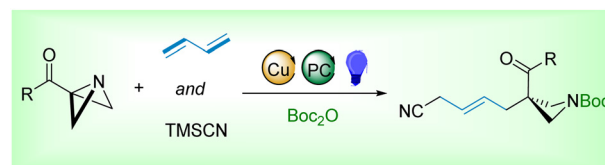
Xue-Wei Qian, Hong Lin, Tianjiao Hu, Xiaodi Yang* and Xing-Wen Sun*



6352

Rapid access to azetidines *via* allylation of azabicyclo[1.1.0]butanes by dual copper/photoredox catalysis

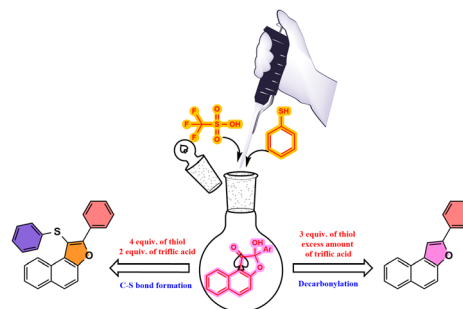
Lei Shi,* Yonghong Liu, Xuehan Qi, Renxu Cao, Yihe Zhu, Jing-ran Shan, Er-jun Hao,* Yunhe Jin and Xiao Feng*



6356

Serendipitous pathway to naphtho[2,1-*b*]furan and its thioether enabled by triflic acid and thiol-mediated reaction

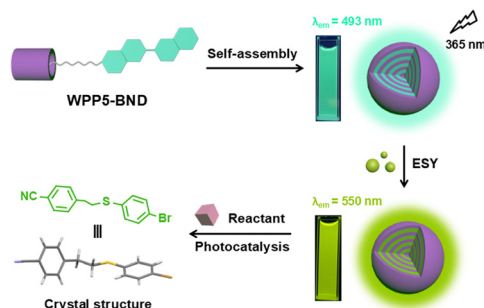
Vijayakumar Hemamalini, Maheswaran Senthil, Bhaskaran Shankar and Subburethinam Ramesh*



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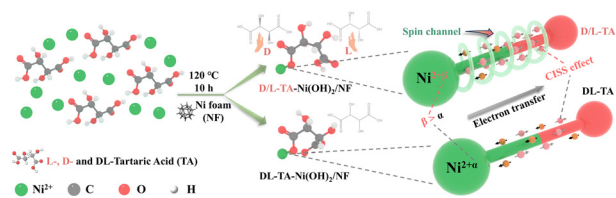
Enhanced emission in a supramolecular artificial light-harvesting system for a photocatalytic thiol-ene reaction

Guangping Sun,* Menghang Li, Jiaji Li, Jin Feng, Zhenhao Yan, Yiwen Sun, Liangtao Pu,* Jinli Zhu, Yanfeng Tang and Yong Yao*



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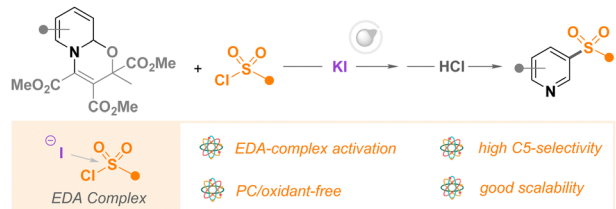
6364



Spin-polarized electron transfer in chiral tartaric acid-engineered $\text{Ni}(\text{OH})_2$ unlocks NiOOH activation for urea electrooxidation

Ming Chen, Wen-Da Zhang,* Qingna Gong, Jiangyong Liu, Xiaoping Yang, Jing Wang* and Xiaodong Yan*

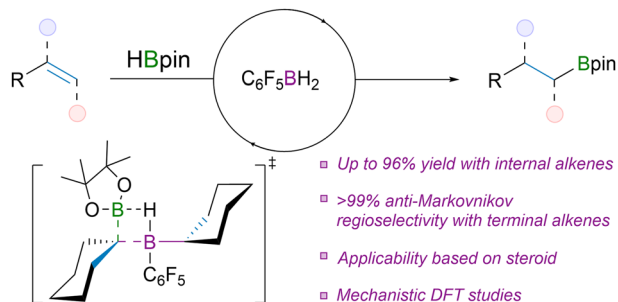
6368



Visible-light-induced *meta*-selective sulfonylation of pyridine *via* an EDA complex

Yongqing Ye, Zhipeng Ye, Meng Guo, Xianchen He, Cong Huang, Haoyue Xiang, Kai Chen* and Hua Yang*

6372



Metal-free alkene hydroboration with pinacolborane employing $\text{C}_6\text{F}_5\text{BH}_2 \cdot \text{SMe}_2$ as a precatalyst

Nikita Slesarchuk, George Doerksen, Petra Vasko* and Timo Repo*

CORRECTIONS

6376

Correction: Innovative bipyridine-bridged metal porphyrin polymer for Robust and superior electrocatalytic hydrogen evolution

Xiaoyu Zhai, Kainan Wang, Cheng Yuan, Pengfei Chen, Wei Zhao,* Aijian Wang,* Long Zhao and Weihua Zhu



CORRECTIONS

6377

Correction: Synergistic effect of hydrogen-bond interaction and interface regulation for stable aqueous sodium-ion batteries

Lingyu Du,* Miaomiao Xie, Zizhen Liu, Weiyu Cao, Jianchao Sun and Litao Kang*

