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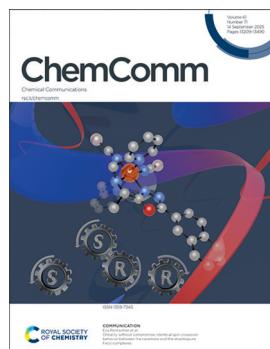
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Cover

See Kourosh H. Ebrahimi *et al.*, pp. 13221–13235.
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Inside cover

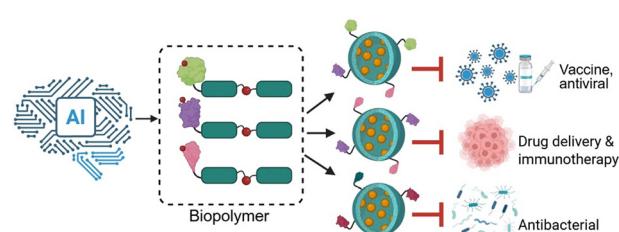
See Eva Rentschler *et al.*, pp. 13389–13392.
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HIGHLIGHTS

13221

Controlling nanocage assembly, towards developing a one-health "plug & play" platform for targeted therapy

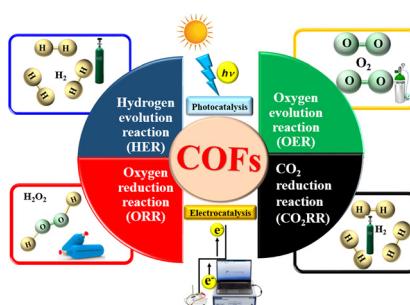
Yujie Sheng, Mark J. Sutton and Kourosh H. Ebrahimi*



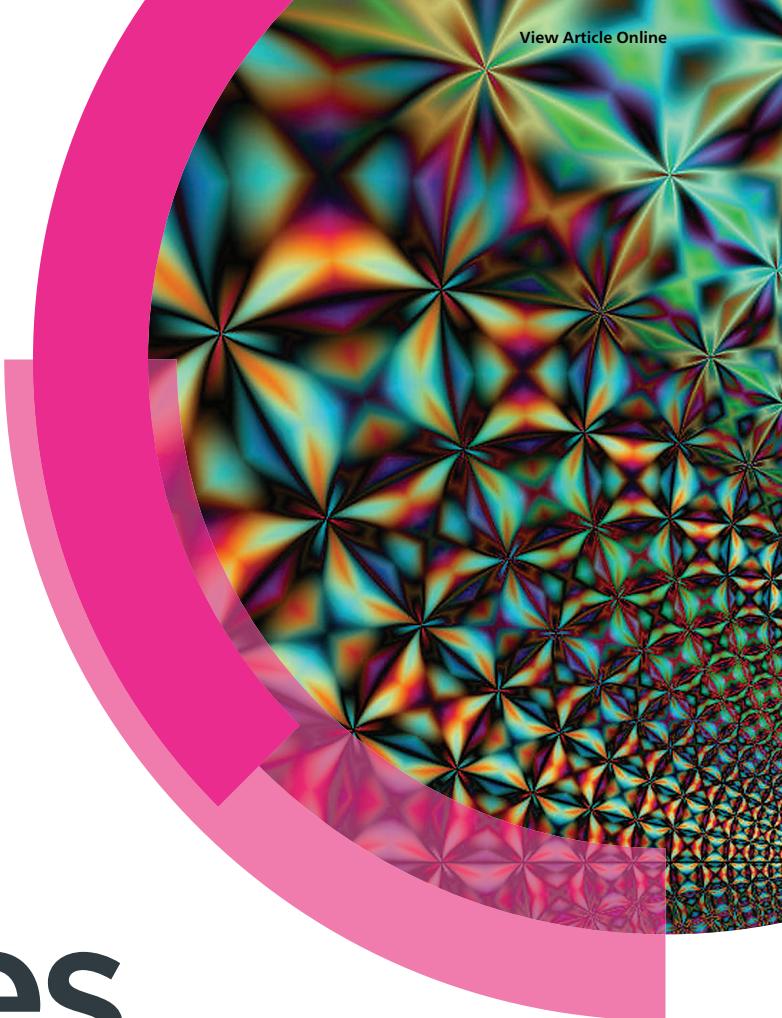
13236

Covalent organic frameworks as emerging photocatalysts and electrocatalysts for renewable energy conversion

Alka, Janak, Sadhika Khullar* and Rakesh Kumar*



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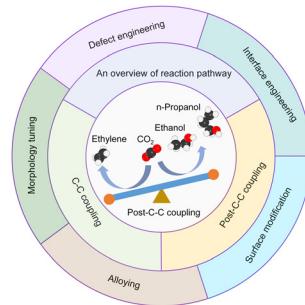
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HIGHLIGHTS

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A mini review on post-C–C coupling mediated CO₂ electroreduction to C₂₊ alcohols

Jiahuan Du,* Jinyun Liu, Ziwei Liu, Na Tian,
Yuting Zhang and Xuehong Gu

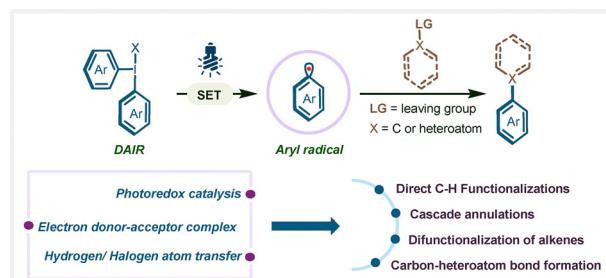


FEATURE ARTICLES

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Visible light-driven chemistry of diaryliodonium reagents: mechanistic perspectives and synthetic applications

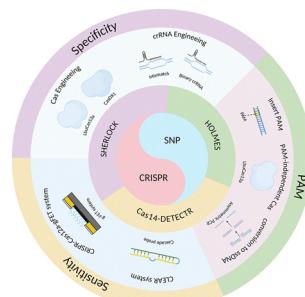
Prahallad Meher, Karan Ramdas Thombare,
Sneha Chandra and Sandip Murarka*



13345

CRISPR-based SNP detection technologies advance from classical methods to cutting-edge innovations

Songkuan Zhuang, Botao Bai and Yizhen Liu*



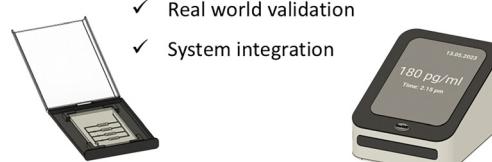
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Maximising the translation potential of electrochemical biosensors

Niamh Docherty, Daniel Macdonald, Alisdair Gordon,
Alexandra Dobrea, Veerappan Mani, Ying Fu, Susan Pang,
Melanie Jimenez and Damion K. Corrigan*

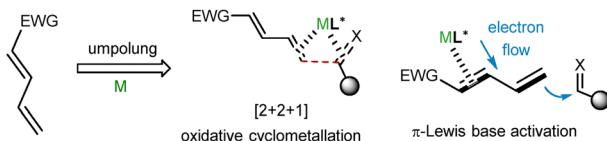
Electrochemical Biosensor Development

- ✓ Prioritising User Needs
 - ✓ Designing for Manufacturability
 - ✓ Real world validation
 - ✓ System integration



FEATURE ARTICLES

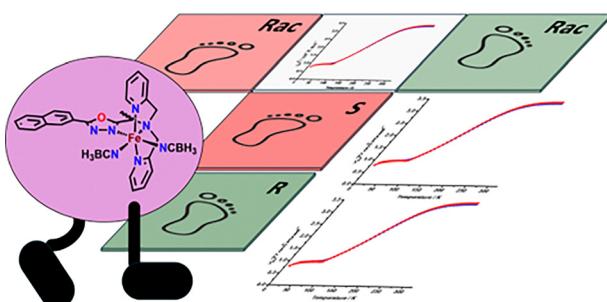
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**Transition metal-catalysed asymmetric umpolung reactions of electron-deficient π -unsaturated systems**

Xue Song, Shangde Liu, Wei Du* and Ying-Chun Chen*

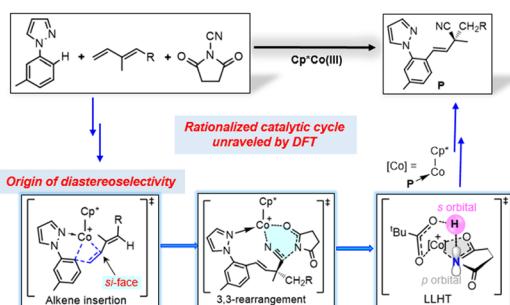
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**Chirality without compromise: identical spin crossover behavior between the racemate and the enantiopure Fe(II) complexes**

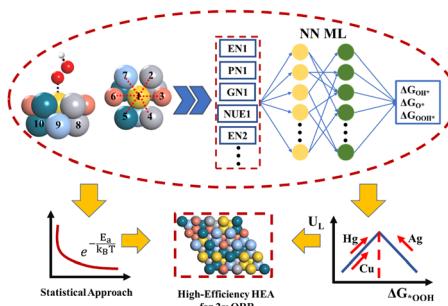
Jens-Georg Becker, Sriram Sundaresan, Luca. M. Carrella and Eva Rentschler*

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**Machine learning driven rational design of AuAgPdHgCu HEA catalysts for the two-electron oxygen reduction reaction**

Zhen Chen, Xi Liu, Junyi Zhu, Bihua Hu, Lin Yang, Xin Wang,* Shuqin Song* and Zhongwei Chen*

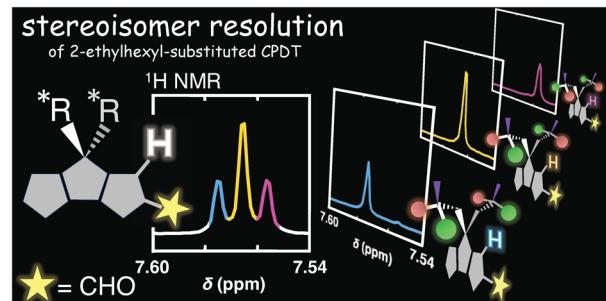


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Stereoisomer resolution of 2-ethylhexyl-substituted cyclopentadithiophene and its effect on optical properties of donor–acceptor–donor conjugated molecules

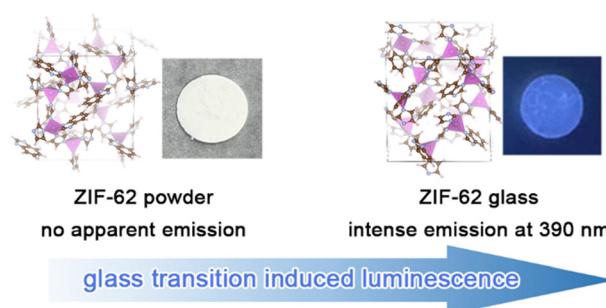
Kenta Yamada, Wataru Suzuki, Jun-ichi Nishida,* Masayuki Gon, Kazuo Tanaka and Tomokazu Umeyama*



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Glass transition-induced luminescence in ZIF-62

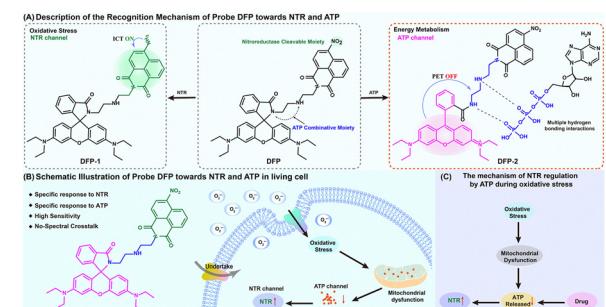
Shuaihua Yu, Haitao Hu, Yichao Lin,* Wen Yang* and Ziqi Tian*



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Simultaneous detection of nitroreductase and adenosine triphosphate using a dual-emission fluorescent probe

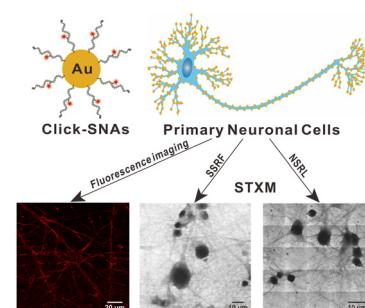
Yumei Xu,* Fang Nian, Jinmei Wei, Li Li, Runtian Ma, Sudai Ma and Wenting Wang*



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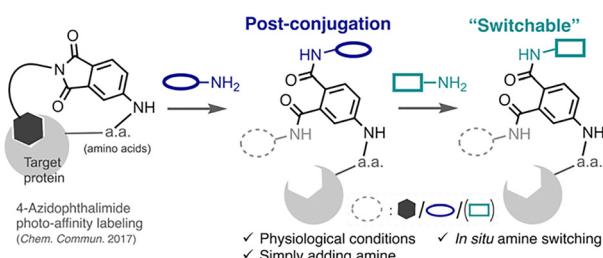
A clickable spherical nucleic acid probe for fluorescence and synchrotron radiation X-ray dual-modality imaging

Xiaobo Wang, Xin Yan, Feng Zhou, Qiaowei Tang, Zijian Xu, Jichao Zhang, Yong Guan, Yanhong Sun, Ying Zhu, Jun Hu and Xiaoqing Cai*



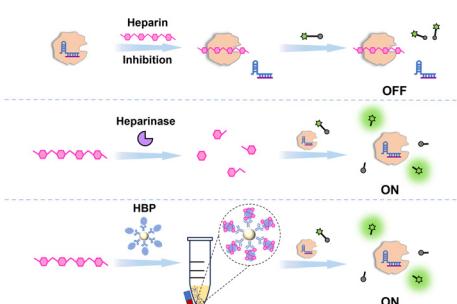
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**Phthalimide: a potential warhead for switchable and bioorthogonal conjugation**

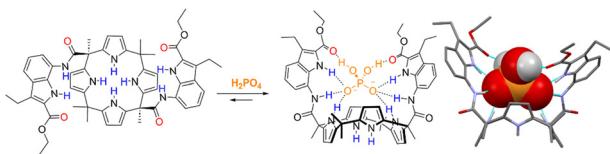
Kosuke Chiba, Takumi Yoshida, Kana Okada, Minoru Ishikawa, Yuichi Hashimoto, Satoshi Obika* and Takao Yamaguchi*

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**Enzyme inhibition-enabled CRISPR/Cas12a biosensing system for heparin-related non-nucleic acid biomarkers**

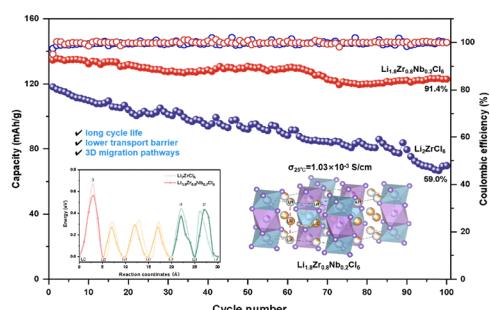
Ruo Ma, Wenjiao Fan,* Yueran Wang, Xinrui Fei and Chenghui Liu*

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**A calix[4]pyrrole functionalized with an amidoindole ester for the selective recognition of the dihydrogen phosphate anion**

Ju Hyun Oh, Sang Kyu Shin and Sung Kuk Kim*

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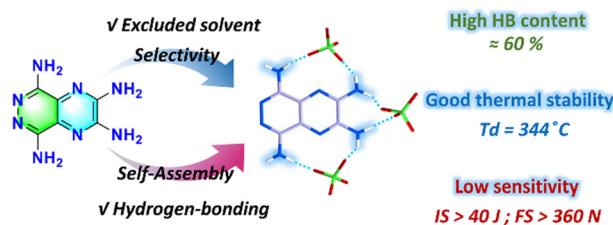
**Boosting lithium-ion transport in halide solid-state electrolytes by aliovalent substitution for all-solid-state lithium-ion batteries**

Suyue Chen, Meiling Liu, Zhihao Yang, Yaxue Zhang, Jiaxing Liu, Weiying Wu, Tieqi Huang* and Hongtao Liu*

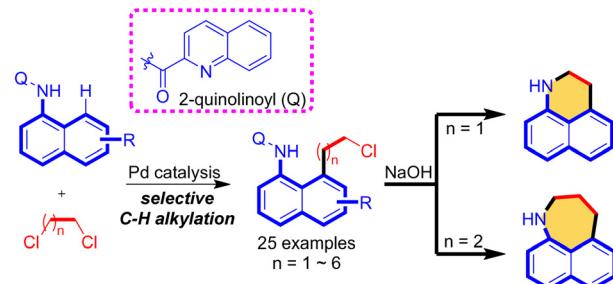


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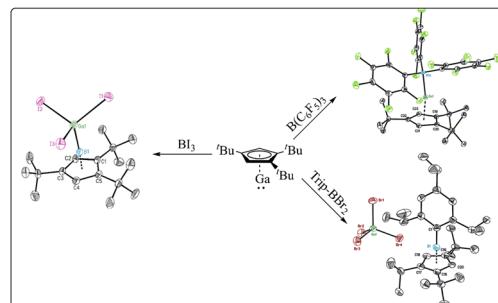
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Tetraamino-driven hydrogen-bonded networks: selective self-assembly of energetic materialsYaxi Wang, Junliang Liu, Jinxuan He, Xiaoting Ren,
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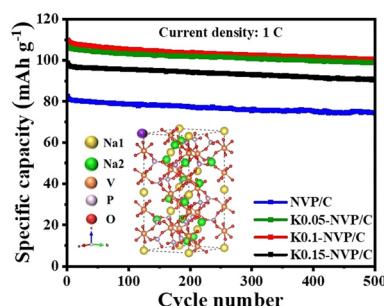
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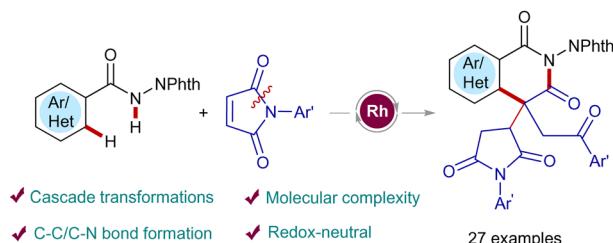
1,2,4-Tri(^tBu)cyclopentadienyl gallium ($Cp''Ga$) as a versatile reagent for the synthesis of Lewis adducts and ionic compoundsYi Ding,* Yongheng Tang, Mohd Nazish,
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Xuejie Wang, Guoyu Tang, Bicheng Zhu and Tao Liu*

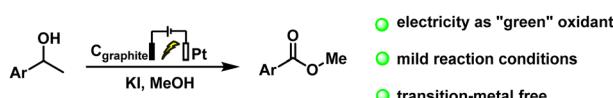
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**Cascade C–H functionalization/annulation of arylamides: access to succinimide-tethered isoquinoline-1,3-diones**

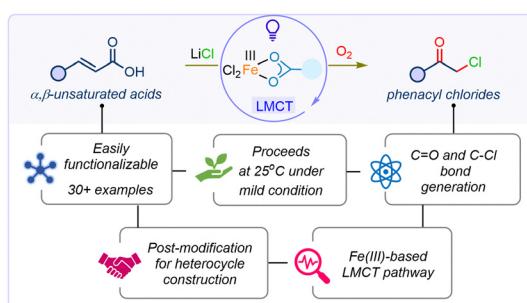
Prabhat Kumar Maharana, Perumal Muthuraja, Subhradeep Kar, Tamilthendral Veerappan and Tharmalingam Punniyamurthy*

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**Electrochemical oxidative cleavage of C(OH)–C bonds for sustainable synthesis of esters**

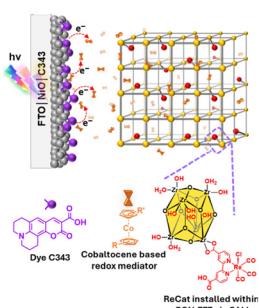
Ran Ma,* Tong Zhang, Yuqi You, Yixin Wang, Zhiyuan Jiang, Ji-Kai Li and Yang Yang*

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**Decarboxylative chlorination of α,β -unsaturated acids**

Soumya Mondal, Siba P. Midya, Soumadeep Ghosh, Souvik Maiti, Subal Mondal, Tarun Jana and Pradyut Ghosh*

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**Dye-sensitized photoelectrochemical cell combining a MOF catalyst and cobaltocene CoCpCp* as redox mediator for CO₂ reduction**

Wojciech G. Sikorski, Tianbo Duan, Tijmen M. A. Bakker, Joost N. H. Reek and Jarl Ivar van der Vlugt*

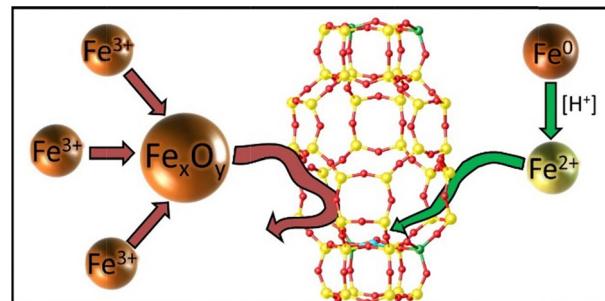


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Novel and more facile synthesis of highly dispersed iron in small-pore zeolites by ion exchange for catalytic applications

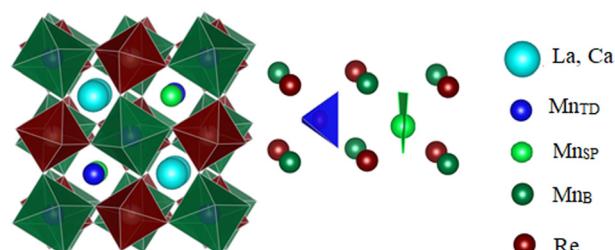
Simon Barth, Leo Scheibe, Maria Casapu and Jan-Dierk Grunwaldt*



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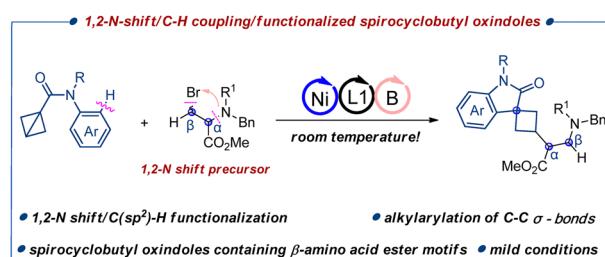
Azizah Almadhi, Sean D. Injac, Kunlang Ji, Clemens Ritter and J. Paul Attfield*



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Nickel-catalyzed sequential 1,2-N-migration/BCBs ring-opening to access spirocyclobutyl β-amino acid esters

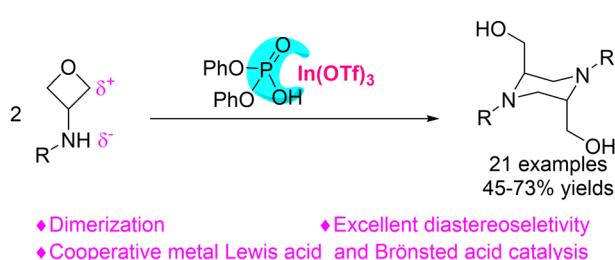
Xin-Yu Li, Mei-Qiu Xiao, Li-Juan Zhou, Jia-Qi Zhang, Meng-Yan Zhao, Shuo-Wen Wang* and Shi Tang*



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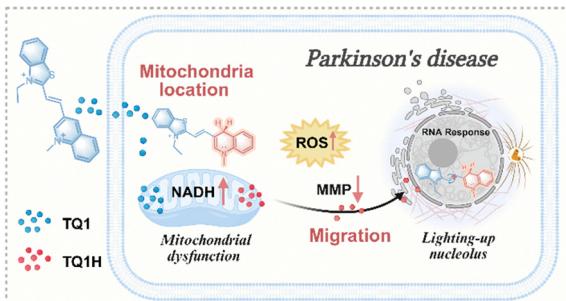
Diastereoselective synthesis of 1,4-diaryl piperazines through the dimerization of 3-aminooxetanes with cooperative indium–diphenyl phosphate catalysis

Long Cheng, Cuicui Nian, Zhengyu Han, Jianwei Sun and Hai Huang*



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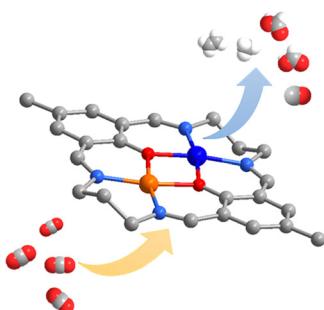
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A NAD(P)H-driven mitochondria-to-nucleus probe for dual-organelle imaging in dopaminergic toxicity models

Qu Tang, Bin Jiang, Majun Yang, Jiayun Guan, Qi Wang,* Yuling Qin* and Li Wu*

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Copper-based homometallic and heterometallic binuclear complexes for electrocatalytic CO₂ reduction

Xin-Ling Xie, Feng Chen, Wen-Wen Wang, Lei-Yan Lyu, Meng-Jiao Sun, Teng Zhang* and Rong Cao*

