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Inside cover

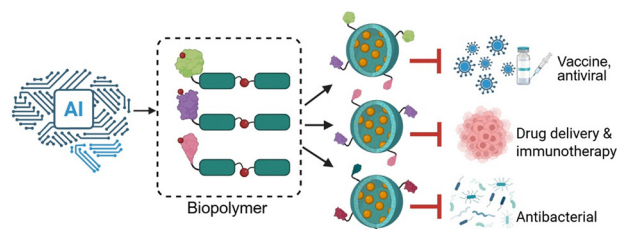
See Eva Rentschler *et al.*, pp. 13389–13392. Image reproduced by permission of Jens-Georg Becker and Eva Rentschler from *Chem. Commun.*, 2025, 61, 13389.

HIGHLIGHTS

13221

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

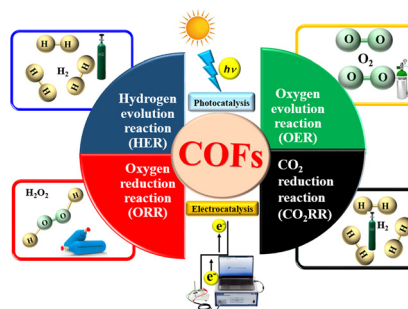
Yujie Sheng, Mark J. Sutton and Kourosh H. Ebrahimi*



13236

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

Alka, Janak, Sadhika Khullar* and Rakesh Kumar*



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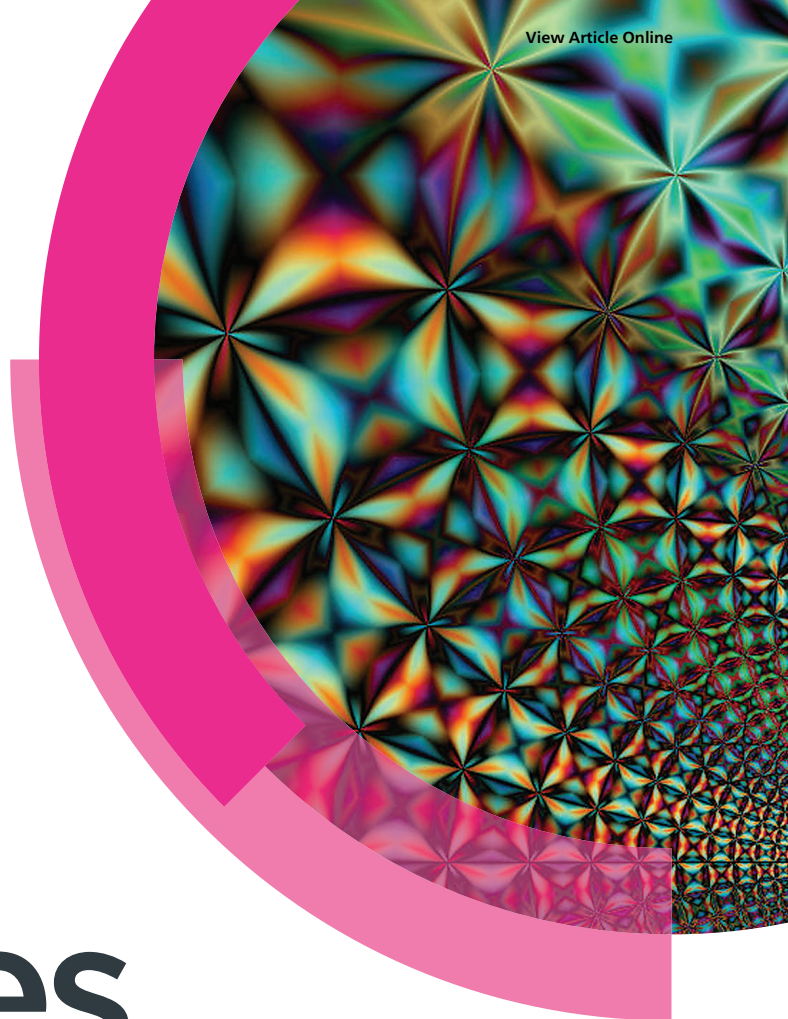


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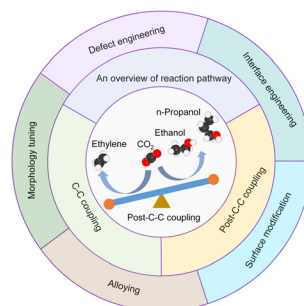


HIGHLIGHTS

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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

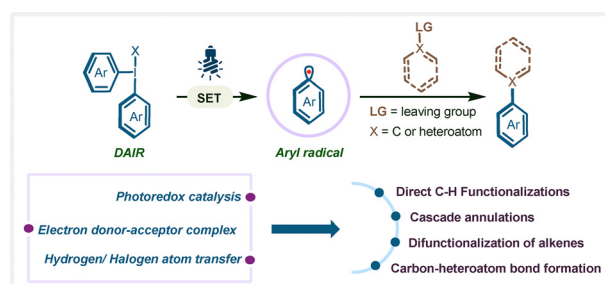


FEATURE ARTICLES

13327

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

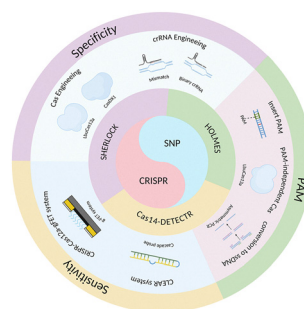
Prahallad Meher, Karan Ramdas Thombare, Sneha Chandra and Sandip Murarka*



13345

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

Songkuan Zhuang, Botao Bai and Yizhen Liu*



13359

Maximising the translation potential of electrochemical biosensors

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

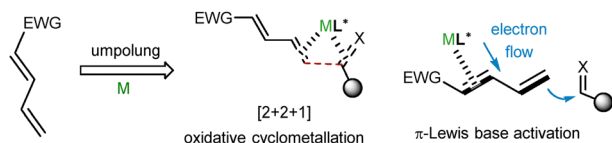
Electrochemical Biosensor Development

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



FEATURE ARTICLES

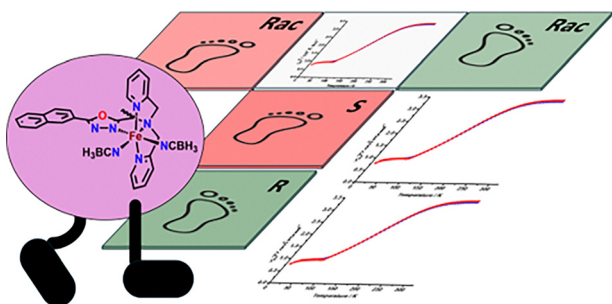
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Transition metal-catalysed asymmetric umpolung reactions of electron-deficient π -unsaturated systems

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

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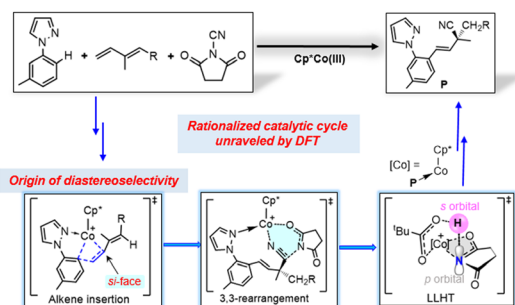
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Chirality without compromise: identical spin crossover behavior between the racemate and the enantiopure Fe(II) complexes

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

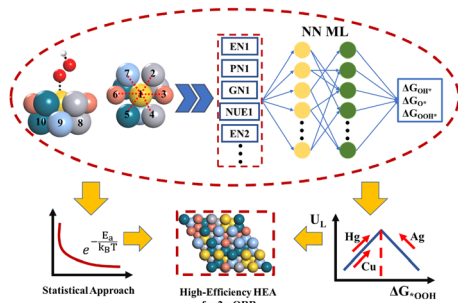
13393



Unconventional diastereoselectivity and mechanism of Cp*Co(III)-catalyzed C–H functionalization of asymmetric dienes: a DFT perspective

Baoping Ling,* Xiaoming Sun, Yuxin Xie, Peng Liu, Wenhui Zhong, Tony D. James and Yuxia Liu*

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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*

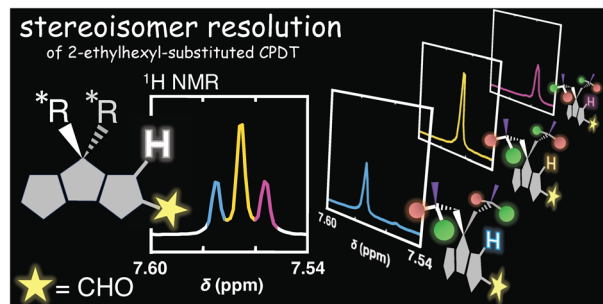


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Stereoisomer resolution of 2-ethylhexyl-substituted cyclopentadithiophene and its effect on optical properties of donor–acceptor–donor conjugated molecules

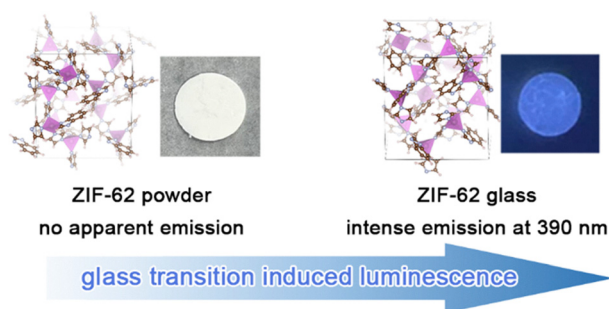
Kenta Yamada, Wataru Suzuki, Jun-ichi Nishida,*
Masayuki Gon, Kazuo Tanaka and Tomokazu Umeyama*



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Glass transition-induced luminescence in ZIF-62

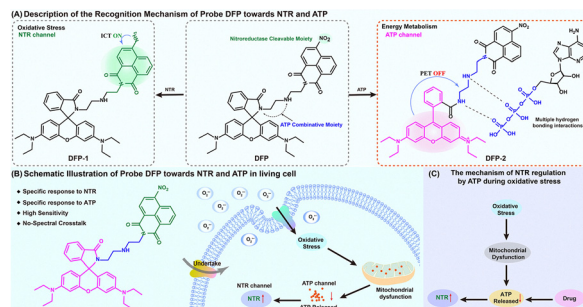
Shuaihua Yu, Haitao Hu, Yichao Lin,* Wen Yang* and
Ziqi Tian*



13409

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

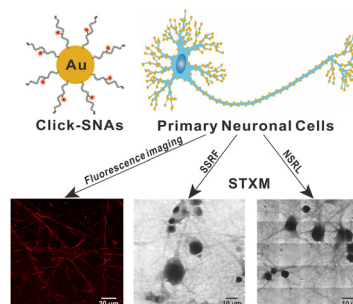
Yumei Xu,* Fang Nian, Jinmei Wei, Li Li, Runtian Ma,
Sudai Ma and Wenting Wang*



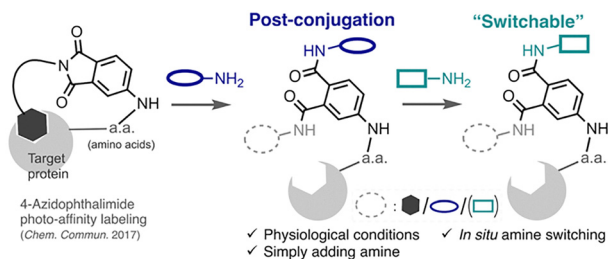
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A clickable spherical nucleic acid probe for fluorescence and synchrotron radiation X-ray dual-modality imaging

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



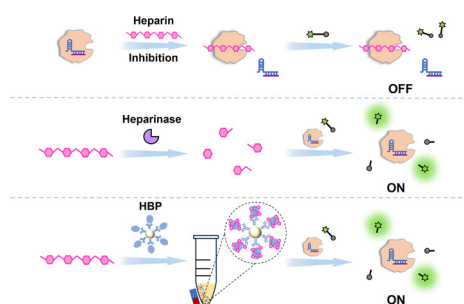
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Phthalimide: a potential warhead for switchable and bioorthogonal conjugation

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

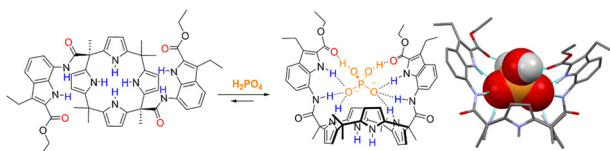
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Enzyme inhibition-enabled CRISPR/Cas12a biosensing system for heparin-related non-nucleic acid biomarkers

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

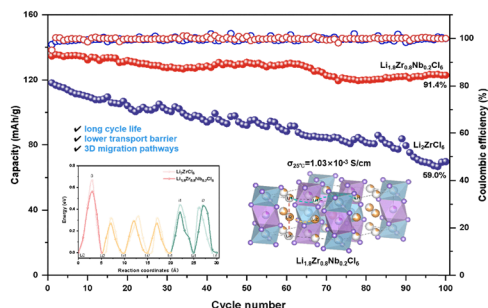
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A calix[4]pyrrole functionalized with an amidoindole ester for the selective recognition of the dihydrogen phosphate anion

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

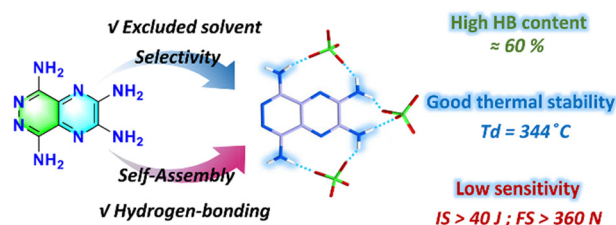
Suyue Chen, Meiling Liu, Zhihao Yang, Yaxue Zhang, Jiaying Liu, Weiying Wu, Tieqi Huang* and Hongtao Liu*



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Tetraamino-driven hydrogen-bonded networks: selective self-assembly of energetic materials

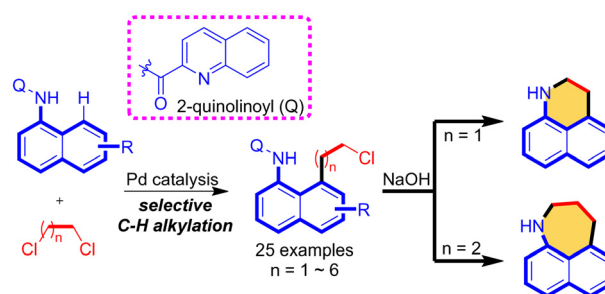
Yaxi Wang, Junliang Liu, Jinxuan He, Xiaoting Ren, Lu Hu* and Siping Pang*



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Palladium-catalyzed aromatic C–H alkylation of 1-naphthylamines with dichloroalkanes and its application in fused polycyclic amine synthesis

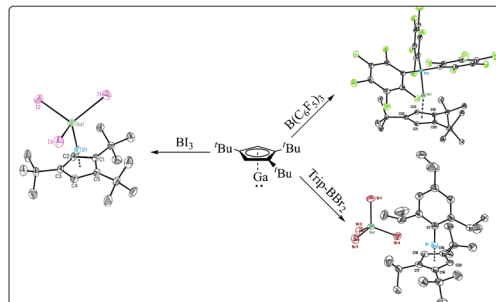
Yixin Shi, Ziyi Zhou, Yilin Hu, Siyun Wang, Mingzhe Hong, Kai Cheng,* Chun-Xiao Jia* and Jie-Ping Wan*



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1,2,4-Tri(^tBu)cyclopentadienyl gallium (Cp^{III}Ga) as a versatile reagent for the synthesis of Lewis adducts and ionic compounds

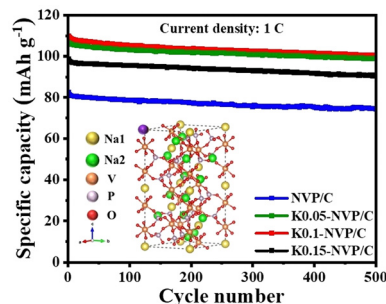
Yi Ding,* Yongheng Tang, Mohd Nazish, Paul Niklas Ruth, Sophia Luisa Wachendorf, Regine Herbst-Irmer, Dietmar Stalke* and Herbert W. Roesky*



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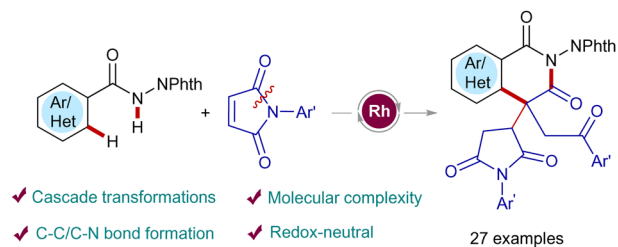
K⁺ doping-induced pillaring effect in Na₃V₂(PO₄)₃ for enhanced rate performance in sodium-ion batteries

Yingqi Wu, Lijun Xu, Jinhui Zhong, Xue Zhang, Xuejie Wang, Guoyu Tang, Bicheng Zhu and Tao Liu*



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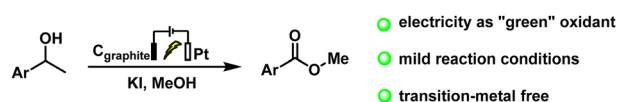
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Cascade C–H functionalization/annulation of arylamides: access to succinimide-tethered isoquinoline-1,3-diones

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

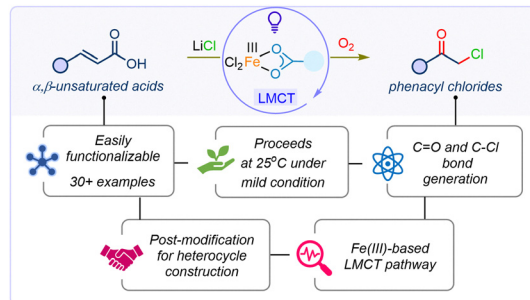
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Electrochemical oxidative cleavage of C(OH)–C bonds for sustainable synthesis of esters

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

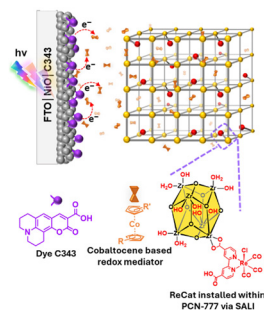
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Decarboxylative chlorination of α,β -unsaturated acids

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*

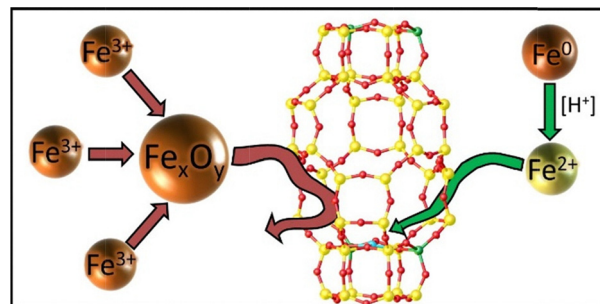


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Novel and more facile synthesis of highly dispersed iron in small-pore zeolites by ion exchange for catalytic applications

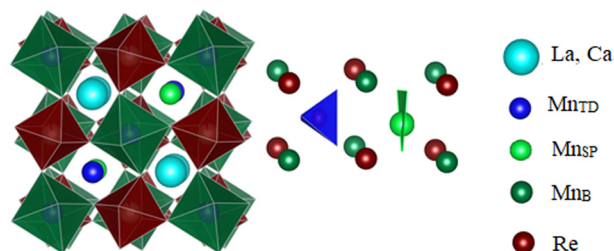
Simon Barth, Leo Scheibe, Maria Casapu and Jan-Dierk Grunwaldt*



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Chemical tuning of a double double perovskite oxide

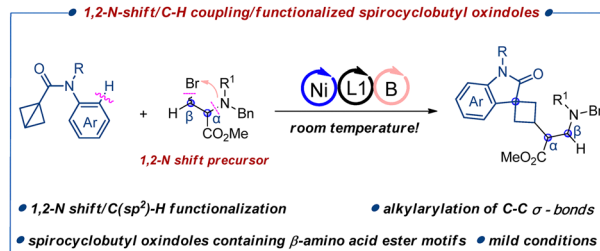
Azizah Almadhi, Sean D. Injac, Kunlang Ji, Clemens Ritter and J. Paul Attfield*



13473

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

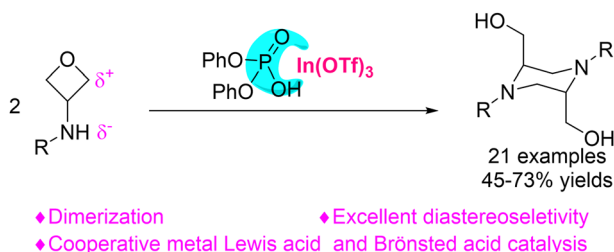
Xin-Yu Li, Mei-Qiu Xiao, Li-Juan Zhou, Jia-Qi Zhang, Meng-Yan Zhao, Shuo-Wen Wang* and Shi Tang*



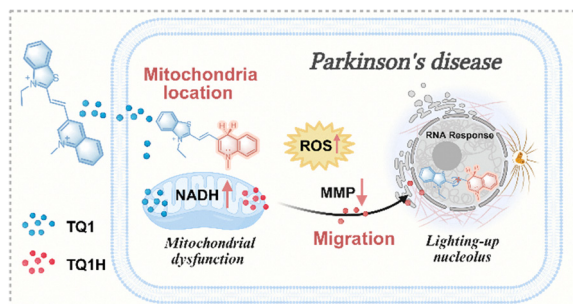
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Diastereoselective synthesis of 1,4-diaryl piperazines through the dimerization of 3-aminooxetanes with cooperative indium–diphenyl phosphate catalysis

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



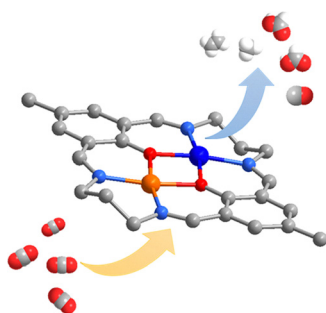
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A NAD(P)H-driven mitochondria-to-nucleus probe for dual-organelle imaging in dopaminergic toxicity models

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*

