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IN THIS ISSUE

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Cover

See Haruyasu Asahara *et al.*, pp. 6091–6095. Image reproduced by permission of Haruyasu Asahara from *Chem. Commun.*, 2026, 62, 6091.



Inside cover

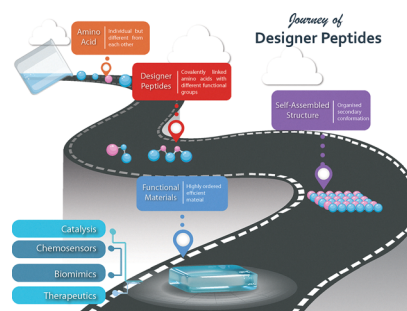
See Tomohiko Shirai *et al.*, pp. 6096–6100. Image reproduced by permission of Tomohiko Shirai from *Chem. Commun.*, 2026, 62, 6096.

FEATURE ARTICLES

6004

The journey of short peptides: from molecules to materials

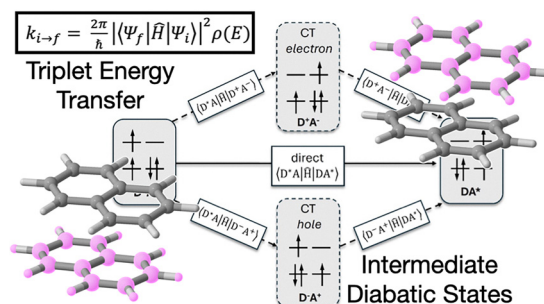
Sampurna Routray, Malay Kumar Baroi, Priyam Das and Debapratim Das*



6029

Computational modeling of triplet energy transfer processes: progress and future challenges

Lee M. Thompson,* Megan J. Mackintosh, Saptarshi Saha and Pawel M. Kozłowski*



Environmental Science: Atmospheres

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Fundamental questions
Elemental answers

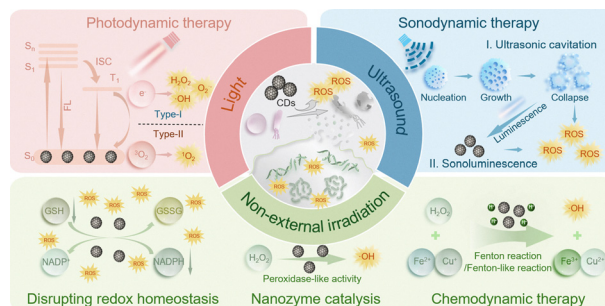


REVIEWS

6046

Carbon dots in the generation of reactive oxygen species for antibacterial therapy: advances and challenges

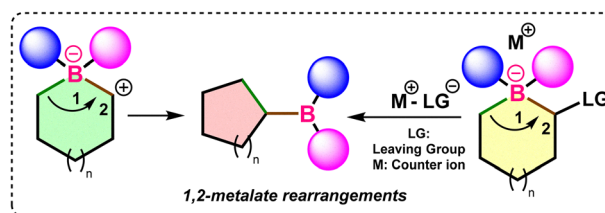
Peiyao Chen, Li-Ge He, Hui Zhai, Xiaoya Yan, Ke-Lan Luo, Hou-Qun Yuan,* Guang-Ming Bao* and Yao Sun*



6066

Strain-ring construction enabled by boronate complex/1,2-metalate rearrangement

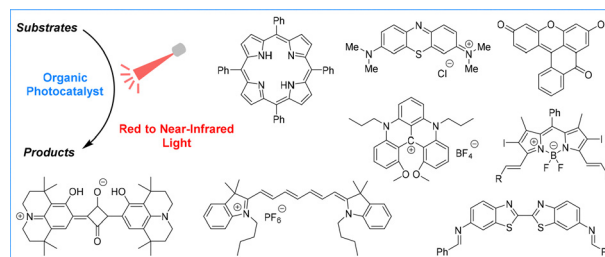
Kanak Kanti Das* and Sutapa Dey



6073

Organophotocatalysis using red to near-infrared light

Heng Yang, Si-Rui Xiang, Meng-Ru Zhai, Kun Shen* and You-Quan Zou*

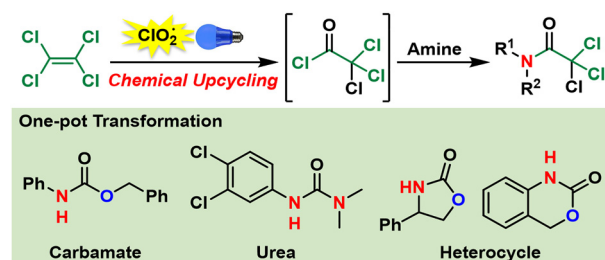


COMMUNICATIONS

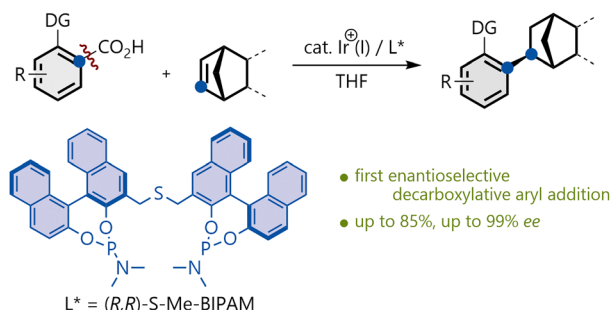
6091

Visible-light-induced upcycling of perchloroethylene into trichloroacetamides using chlorine dioxide

Shohei Ohno, Genta Taniguchi, Minami Fukuhara, Yuki Itabashi, Tsuyoshi Inoue, Kei Ohkubo and Haruyasu Asahara*



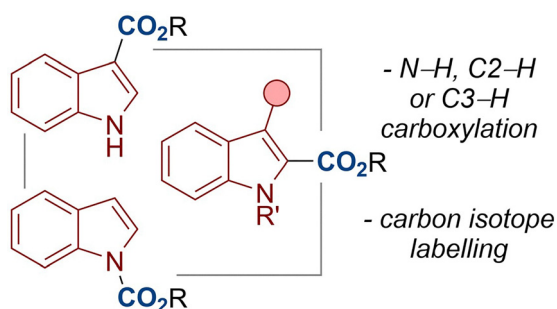
6096



Cationic iridium-catalyzed enantioselective decarboxylative aryl addition of aromatic carboxylic acids to bicyclic alkenes

Ren Asano, Reina Nonami, Hina Hamasaki, Kazuya Kanemoto, Harunori Fujita, Kaisei Yamamoto, Tomohiro Seki, Kazutaka Shibatomi, Shunsuke Kuwahara and Tomohiko Shirai*

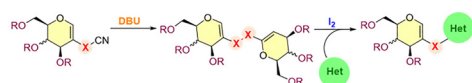
6101



Switchable N-H vs. C3-H carboxylation of indoles using dual-function reagents

Katherine E. Marris, Jazmine T. Thorne, Daniel J. Ryder-Mahoney, Ryan A. Bragg, Charles S. Elmore and Gregory J. P. Perry*

6106

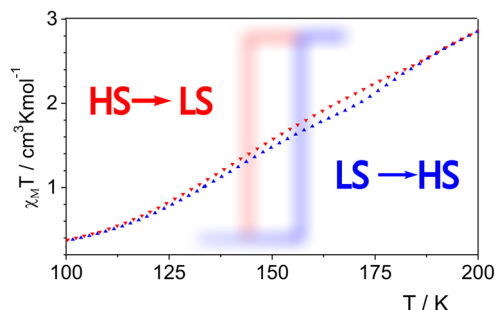


- Glucals, and Galactals
- Het: imidazo[1,2-a]pyridine, indole, azaindole, imidazo[2,1-b]thiazole, and benzo[d]imidazo[2,1-b]thiazole
- X = S, Se
- Yield up to 93 %
- 27 examples with wide substrate scope

Regioselective chalcogenation of glycals: DBU and iodine-mediated, transition-metal-free synthesis of heteroaryl thio- and seleno-glycoconjugates

Pallavi Saha and Deepak K. Sharma*

6110



"Inverted" hysteresis in a bilayer Fe(II) spin crossover system

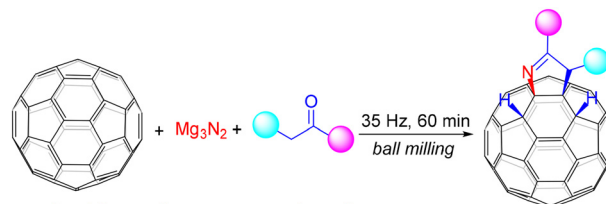
Aleksandra Totoczko, Marcin Kaźmierczak, Vladyslav Maliuzhenko, Miłosz Siczek, Marek Weselski and Robert Bronisz*



6114

Mechanochemical applications of magnesium nitride to fullerene chemistry: synthesis of pyrroline-fused tetra-functionalized [60]fullerene derivatives

Jun-Shen Chen, Wen-Jie Qiu, Li-Feng Guo and Guan-Wu Wang*

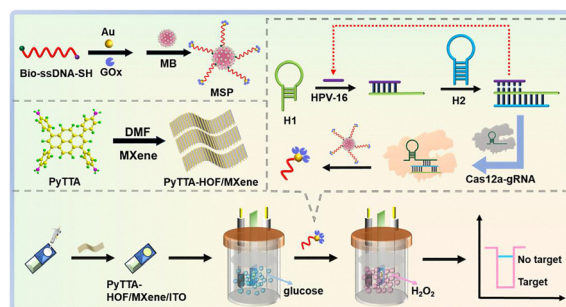


- solvent-free • three-component reaction
- selective multi-addition of C₆₀

6118

PyTTA-HOF/MXene integration with a CRISPR/Cas12 strategy for advanced homogeneous photoelectrochemical sensing

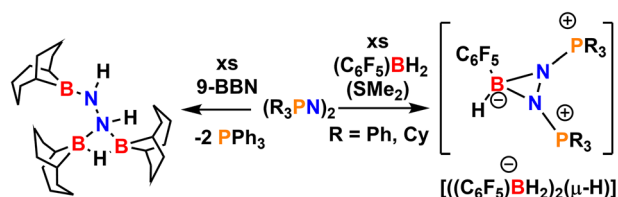
Hui-Li Yu, Jia-Le Wang, Qin-Xia Du, Li-Ping Jia, Wei Zhang, Lei Shang, Xiao-Jian Li, Huai-Sheng Wang* and Rong-Na Ma*



6123

Reactions of phosphazines with primary and secondary boranes: adducts, rings and reduction

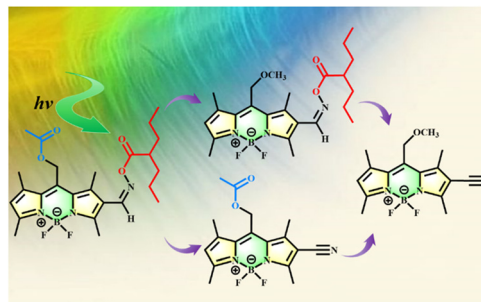
Vaibhav Bedi, Andrew Niles L. Ocampochua, Zheng-wang Qu,* Stefan Grimme and Douglas W. Stephan*



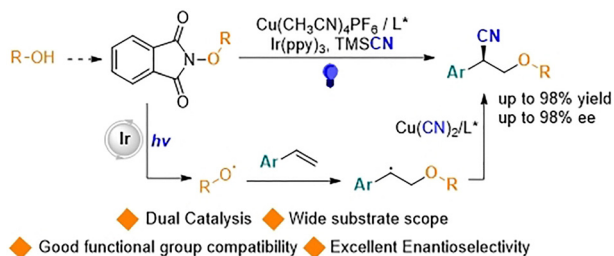
6128

BODIPY-based photouncaging – green light triggered dual cargo molecule release

Xuemei Chen, Krishnaben V. Sabhaya, Bryan Liu, Gabrielle Bonifacio, Yongqing Yang, Hao Chen and Yuanwei Zhang*



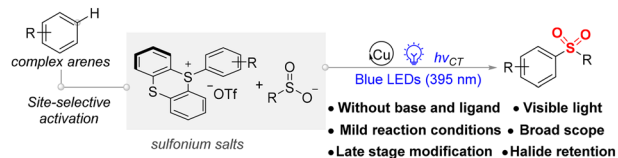
6132



Enantioselective photoredox- and Cu-catalyzed alkoxylation of styrenes to synthesize chiral β -cyanoethers

Xiang Yu, Mengru Niu, Huan Chen, Jiajia Wu, Fang Fang,* Xiaoting Zhai* and Guoyu Zhang*

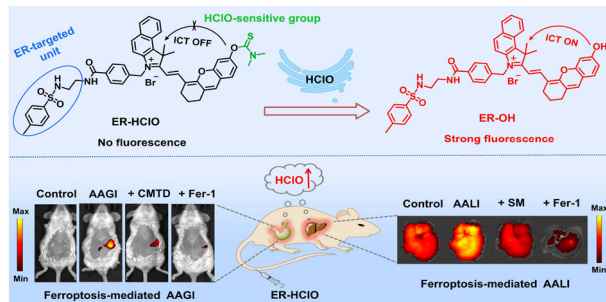
6137



Visible light-induced sulfonation reaction of copper-catalyzed thianthrenium salts

Bin Zhao, Ping-Ping Liang, Liu-Meng Wu, Xue-Meng Xu, Jia-Yi Shang, Guo-Qin Hu and Jing-Hui Liu*

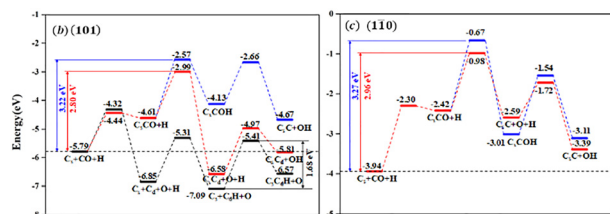
6141



A HClO-activated endoplasmic reticulum fluorescent probe for visualization of ferroptosis-mediated acute alcoholic gastric and liver injury

Rui Wang, Sijie Li, Hui Wang, Yongming Yang, Mengjuan Shi, Xue Yu,* Peng Lei, Xihua Yang,* Shaomin Shuang, Chuan Dong and Li Fan*

6146



Theoretical insight into h-Fe₇C₃ catalyzed Fischer–Tropsch synthesis: unraveling the C₂₊ product formation mechanism and surface-specific electronic descriptors

Yajing Duan* and Hui Du*



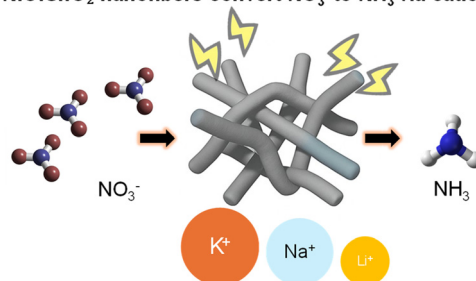
COMMUNICATIONS

6151

Influence of cations on nitrate-to-ammonia synthesis over NiO:SnO₂: insights from differential electrochemical mass spectrometry

Eleazar Castañeda-Morales, Miguel A. Rodríguez-Olguín, Fabio A. Gómez-Gómez, Francisco Ruiz-Zepeda, Han Gardeniers, Arturo Manzo-Robledo* and Arturo Susarrey-Arce*

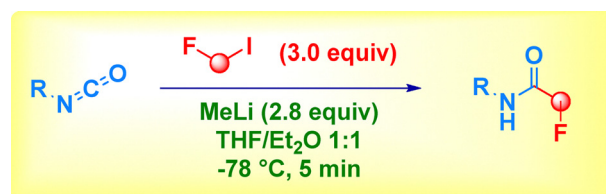
NiO:SnO₂ nanofibers convert NO₃⁻ to NH₃ via cation effects



6155

Chemoselective synthesis of α -fluoromethyl amides via the controlled addition of LiCH₂F to *N*-aryl and *N*-alkyl isocyanates

Davide Castiglione, Alberto Nardi, Margherita Miele, Laura Castoldi* and Vittorio Pace*

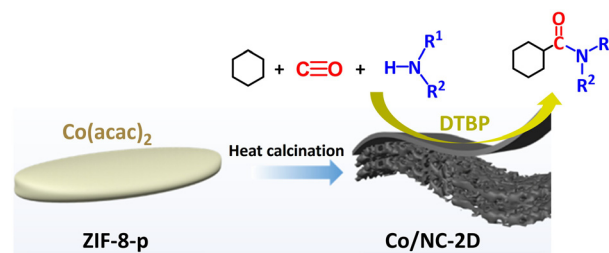


- 30 examples
- high yielding
- direct procedure
- no racemization
- high chemoselectivity

6160

A nitrogen-doped carbon-supported cobalt catalyst for highly selective catalysis of cyclohexane amino carbonylation

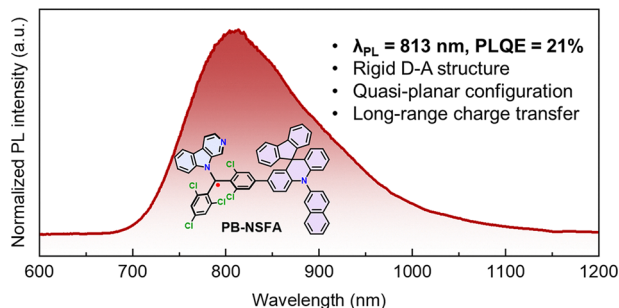
Mingqin Guo, Ce Liu, Kang Zhao, Xunxun Li, Delong Han* and Xinjiang Cui*



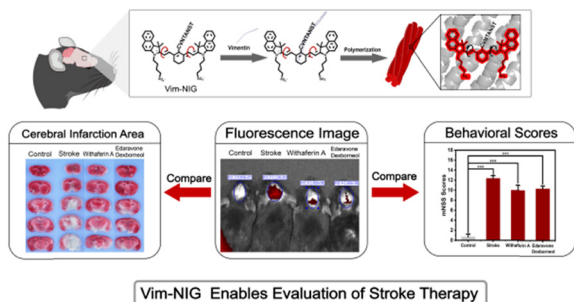
6164

Efficient spin-doublet near-infrared emission beyond 800 nm via intramolecular charge transfer in a quasi-planar donor-acceptor structure

Lingfeng Xiang, Shilong Yu, Xiaotong Ji, Yuqi Chen, Yusheng Yan, Jiashun Feng, You-Jun Yu,* Houyu Zhang, Ming Zhang and Feng Li*



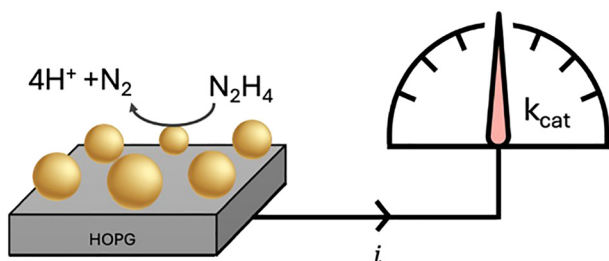
6169



Near-infrared fluorescence imaging of vimentin dynamics enables evaluation of stroke therapy in live mice

Xin Wang, Simiao Zhang, Xiwei Li, Qi Ding, Feida Che, Wen Zhang, Wei Wu* and Ping Li*

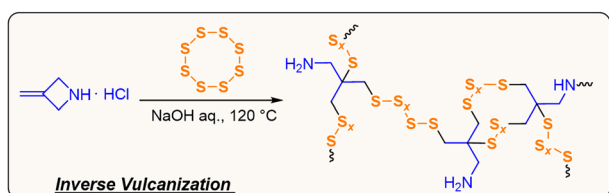
6174



Is the catalytic current always proportional to the surface area of an electro-catalyst?

Emily Dominique and Christophe Renault*

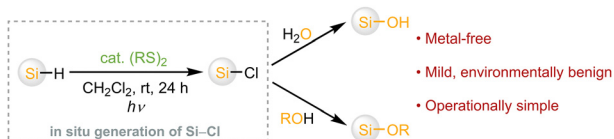
6178



Anionic inverse vulcanization of 3-methyleneazetidinium for reusable adhesives

Pinxian Gao, Weishu Yang, Weixuan Lai, Hai-Bin Yang* and Zhen Zhang*

6183



Light-driven silane functionalization using disulfide and dichloromethane

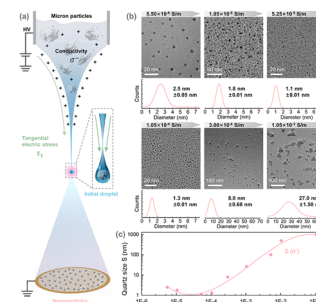
Jiin Lee, Hyunji Kim and Sunggi Lee*



6187

A universal size-controllable top-down synthesis of nanomaterials via electro spray

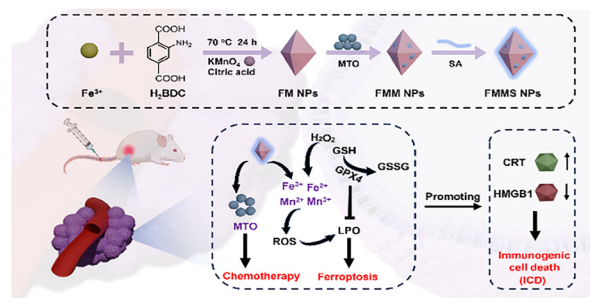
Jun Xie, Mingbo Xie, Yeqiu Zhao, Wanyi Shen, Jiashu Li, Qingwei Wang, Xu Yan, Meiqing Shi, Liyuan Chai and Liyuan Zhang*



6192

A pH-responsive iron/manganese bimetallic organic framework nanosystem for synergistic therapy of colon cancer

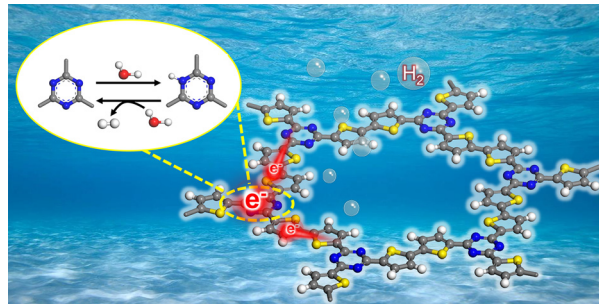
Siyuan Wang, Shichen Zhang, Xue Jia, Xinran Yan, Yixin Tang, Mujie Kan, Chang Liu* and Caina Xu*



6196

Bithiophene-linked conjugated polymers featuring intrinsic active sites for efficient solar-driven hydrogen production

Yuchen Cong, Wanjun Tang, Pengyu Ma, Jianye Zou and Ying Zhang*



6200

Sonochemical synthesis of robust covalent organic frameworks via one-pot Doebner reactions in aqueous media

Kun Wu, Ling Huang, Jia-Yu Huang, Wen-Ting Zeng, Weigang Lu* and Dan Li

