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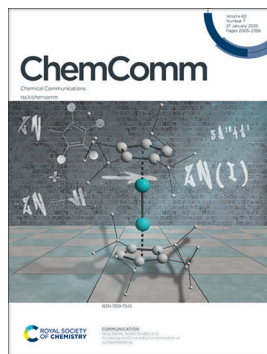
IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 62(7) 2005-2358 (2026)



Cover

See Daisuke Takahashi, Kazunobu Toshima *et al.*, pp. 2199–2203. Image reproduced by permission of Daisuke Takahashi from *Chem. Commun.*, 2026, 62, 2199.



Inside cover

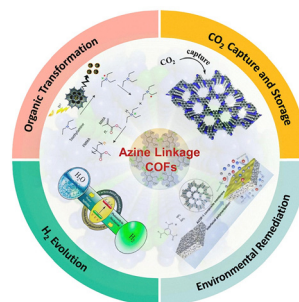
See Sergi Danés, André Schäfer *et al.*, pp. 2204–2207. Image reproduced by permission of André Schäfer from *Chem. Commun.*, 2026, 62, 2204.

HIGHLIGHTS

2020

Azine-linked covalent organic frameworks: recent developments in synthesis and functional applications

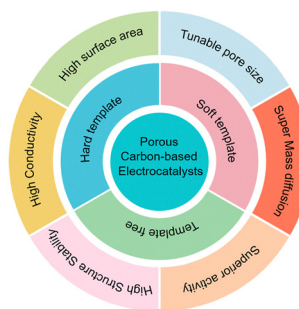
Saira Manzoor, Muhammad Adnan Younis, Yanling Yao, Qamar-un-nisa Tariq, Nargis Sultana, Xiang Ling* and Chuntian Qiu*



2037

Recent progress on functional porous carbon-based materials for electrocatalytic processes in Zn–air and fuel cells

Xuan Xie, Huichao Qi, Jian Xiong, Quanyu Wen, Zhe Zhang, Kexin Wu, Han Zeng, Huiqing Wang, Zhongning Huang,* Jie Lin* and Binbin Jia*



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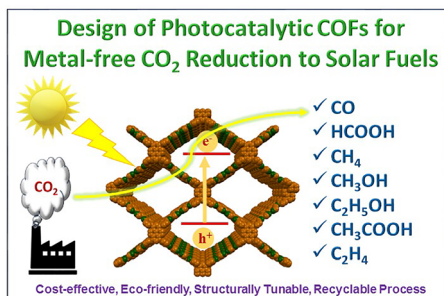
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FEATURE ARTICLES

2133

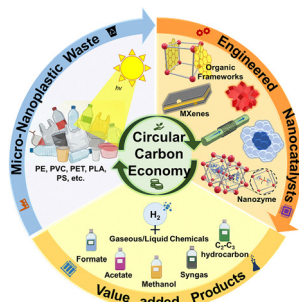


Design of covalent organic frameworks (COFs) for photocatalytic CO₂ reduction under metal-free conditions

Kamal Prakash, Gulshan Singh, Pooja Rani and C. M. Nagaraja*

REVIEWS

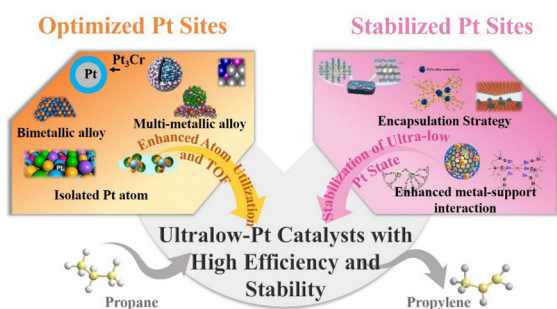
2154



Engineered nanocatalysts for degradation and valorisation of micro/nanoplastics

Emansi Yadav, Aakanksha Pathak and Krishna Mohan Poluri*

2178

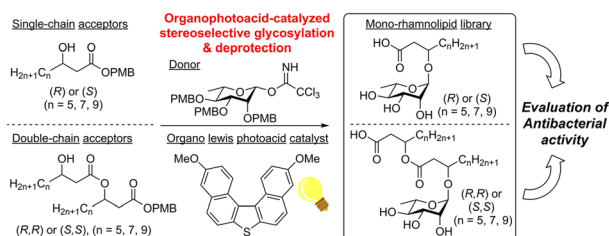


Reducing Pt dependency in propane dehydrogenation: rational design toward efficient and durable catalysts

Sixiang Zhai, Minglei Sun, Huiming Yang and Zhong-Yong Yuan*

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2199



Total synthesis of mono-rhamnolipids using organophotoacid-catalyzed glycosylation and their antibacterial activity

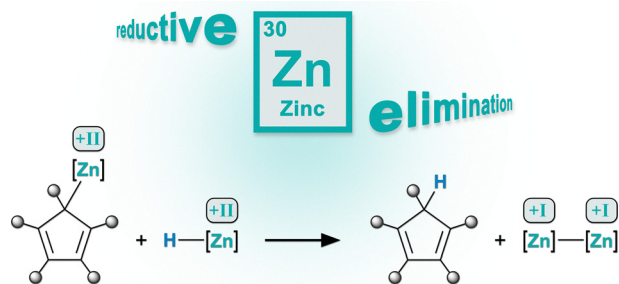
Kohei Higashiyama, Kanae Hosomi, Kazuki Senoo, Chigusa Hayashi, Masayuki Igarashi, Daisuke Takahashi* and Kazunobu Toshima*



2204

Accessing zinc(i) via reductive elimination of cyclopentadienes

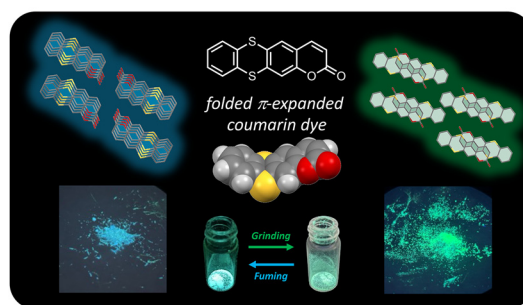
Benjamin Pitz, Sergi Danés,* Bernd Morgenstern and André Schäfer*



2208

A folded mechanochromic organic fluorophore based on thianthrene-fused coumarin

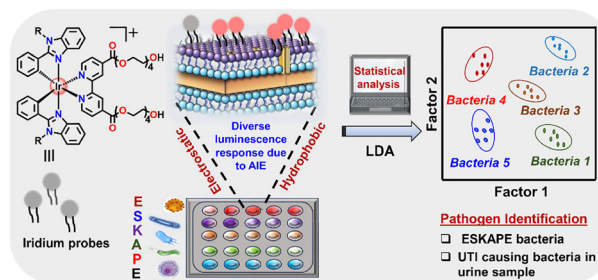
Masafumi Ueda,* Asuka Uehara, Kazuteru Usui and Masashi Hasegawa



2212

Luminescent array sensors for pathogen identification using AIE-active cationic iridium complexes

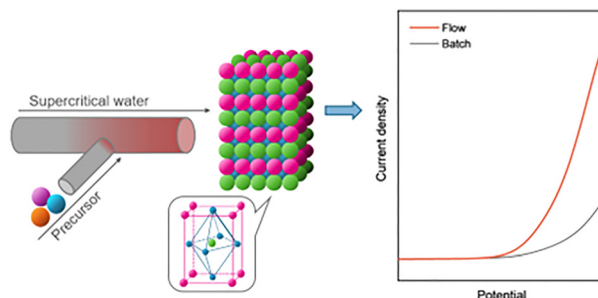
Sonali Bera, Aryan Gautam, Gaurank Pal and Puja Prasad*



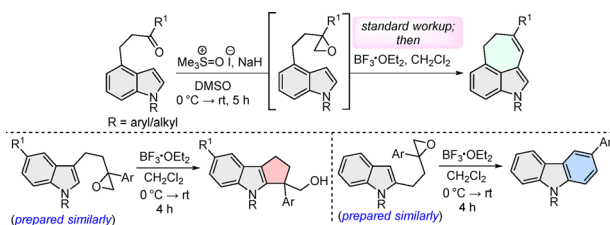
2217

Rapid synthesis of SrRuO₃ using supercritical water fluid with improved oxygen evolution activity

Yumeng Li, Takaaki Toriyama, Tomokazu Yamamoto, Yasukazu Murakami, Hirotaka Ashitani, Shogo Kawaguchi, Yoshiki Kubota, Hiroshi Kitagawa* and Kohei Kusada*



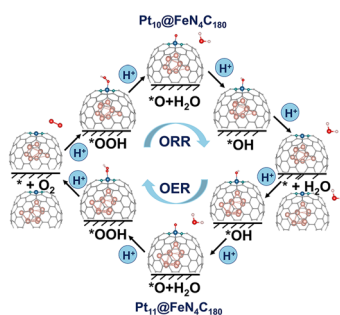
2222



Reactivity divergence in the cyclization of terminal epoxides all-carbon-tethered to indoles

Upasana Deka, Abhijit Gogoi and Sajal Kumar Das*

2226



Mechanistic insights into the ORR/OER performance of FeN-doped fullerenes via Pt cluster size modulation

Junlin Luo, Wei Liu, Liangpeng Li, Yanning Gao, Xiaobin Niu* and Na Yang*

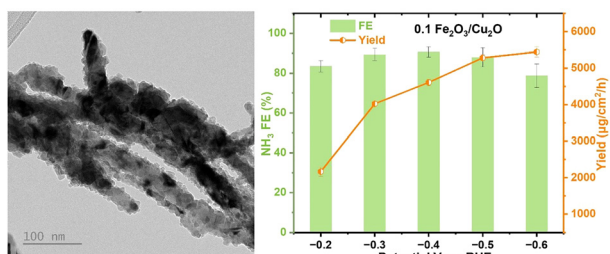
2230



Engineering asymmetric D- π -A BODIPYs as high-performance photosensitizers for photodynamic therapy

Ziyu Zhai, Fangjian Cai, Pengfei Li, Chulin Qu and Zhen Shen*

2234



Electrocatalytic nitrate reduction over Cu_2O nanowires partially decorated with Fe_2O_3 nanoparticles

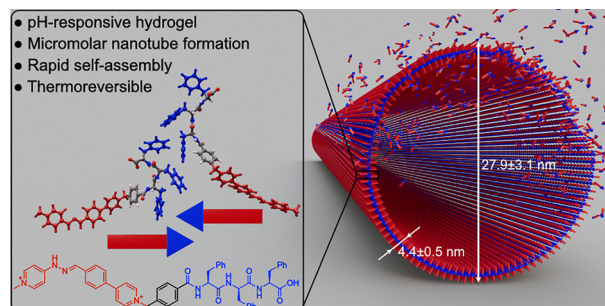
Kaili Liu, Zhehao Sun, Muhammad Usman, Jiayi Chen, Myat Thwe Naing, Huimin Gu, Yi-lun Chen, Yiding Yang, Hang Yin, Ary Anggara Wibowo, Xuechen Jing, Nicholas Cox and Zongyou Yin*



2238

Highly stable self-assembled nanotubes from a bipyridinium-based amphiphilic pseudopeptide

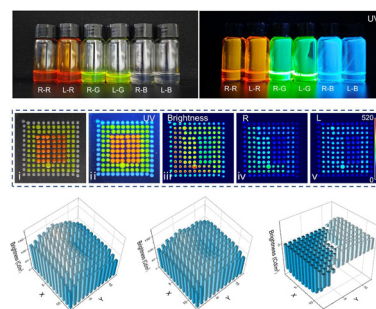
Alejandro Vila, Valentina Gauci and Arturo Blanco-Gómez*



2243

Sustainable circularly polarized luminescent inks for cryptography

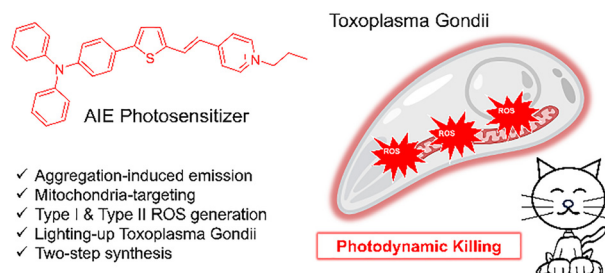
Qi Guo, Zeyi Li, Shanshan Zhao, Yajie Zhou, Mingjiang Zhang, Yaxin Wang, Wei Bai* and Taotao Zhuang*



2247

An AIE photosensitizer with type I/II ROS generation for photodynamic therapy of toxoplasmosis

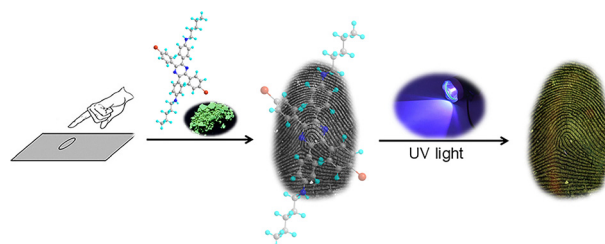
Jiating Chen, Wen Li, Rulong Chen, Tingfei Xie, Jinxin Zhang, Jiahui Chen, Xiaolu Sui, Pengfei Zhang* and Jihong Chen*



2251

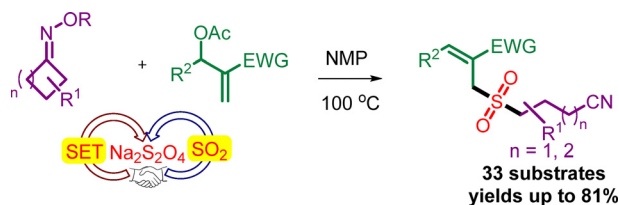
Facile synthesis of tetraphenylpyrazine-based AIE molecules with distinguishable fluorescence for aging latent fingerprint visualization

Ping Yang,* Yuanlin Zhang, Wen Liu, Kuiliang Li,* Duo-Duo Hu and Haoyuan Lv



COMMUNICATIONS

2256

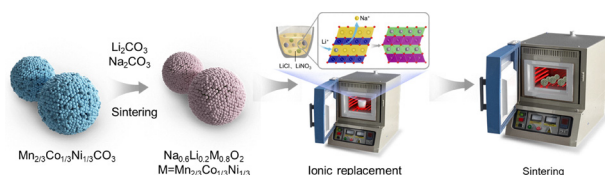


- ▼ $\text{Na}_2\text{S}_2\text{O}_4$ as a bifunctional reagent
- ♣ Transition-metal-free
- ♣ Chemo-, regio- and stereo-selective

Sodium dithionite as a bifunctional reagent for the cyanoalkylsulfonation of Morita–Baylis–Hillman acetates with cycloketone oxime esters

Bathula Maheswari, C. Bharath Kumar and Srirama Murthy Akondi*

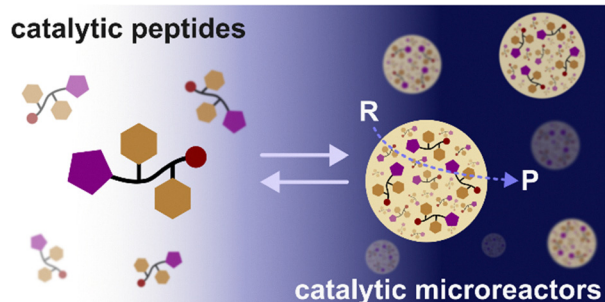
2260



Low-temperature heat treatment enhances the structural stability of O₂-type lithium-rich manganese-based materials

Yufang Chen,* Xiao Zhang, Peitao Xiao, Xianxian Shi, Chunman Zheng, Di Lu,* Hongbo Shu,* Yanshuang Zhao* and Jinhui Wang*

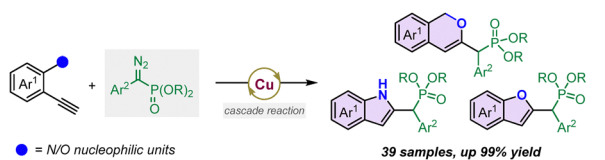
2264



Organocatalytic peptide coacervates as microreactors for aqueous aldol additions

Zhen Dai, Malcolm Meyn and Lucas Caire da Silva*

2268



● = N/O nucleophilic units

- First Cu-catalyzed tandem cross-coupling/cyclization of diazophosphonates with terminal alkynes
- Efficient access to methinephosphonate-containing heterocycles
- Mild reaction conditions and versatile synthetic transformations

Cu-catalyzed tandem cross-coupling/cyclization of aryl diazophosphonates with phenylacetylene derivatives

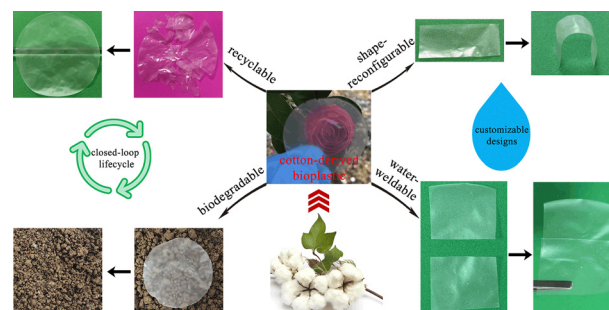
Jiahui Du, Chengkai Ruan, Guifa Cui, Hongping Zhao and Chengyu He*



2272

Closed-loop recyclable, biodegradable, shape-reconfigurable, water-weldable cotton-derived bioplastic

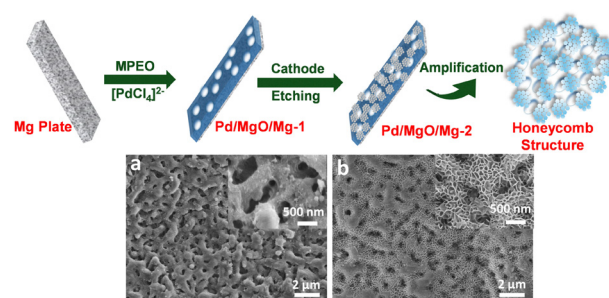
Wenjie Zhang,* Yilin Yang, Yajie Wang, Zhen Peng, Zhanliang Tao and Zheng-Hong Huang*



2277

A hierarchical honeycomb-structured Pd/MgO/Mg catalyst via microplasma electrolytic oxidation and cathodic etching for efficient green oxidation of hydrosilanes

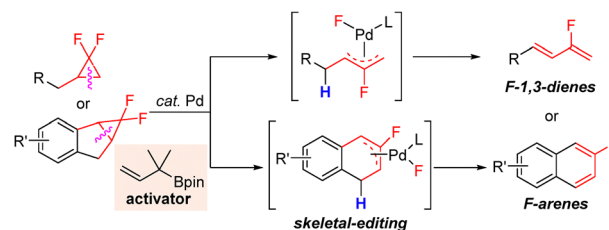
Jun Zhou,* Yue Yin, Zhaodong Li, Mengyu Wang, Sitong Liu, Minghao Wu, Xiaoqing Cao,* Junchao Ma, Song Li and Gaowu Qin*



2282

Palladium-catalyzed ring-opening defluorination of gem-difluorocyclopropanes: expedient synthesis of fluorinated 1,3-dienes and arenes

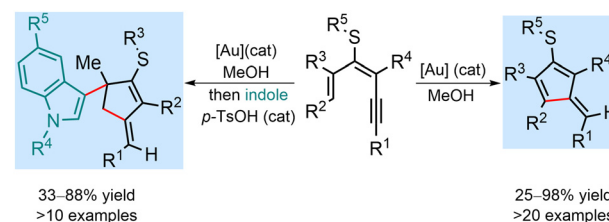
Junqi Su, Jia-Wei Tang and Leiyang Lv*



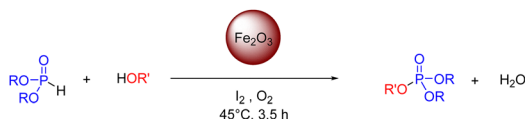
2287

Controlled gold-catalyzed 5-exo-dig cyclization of 3-sulfur-substituted 1,3-dien-5-ynes for synthesizing fulvenes and the *in situ* reaction with indoles

Clara Martínez-Núñez, Carlos Arribas-Torrecilla, Roberto Sanz* and Samuel Suárez-Pantiga*



2292

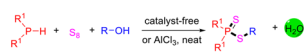


- ✓ Mild reaction conditions
- ✓ Inexpensive catalyst
- ✓ Moisture/air tolerant
- ✓ 13 examples
- ✓ Oxygen as terminal oxidant
- ✓ Environmentally friendly

Iodine/iron oxide-catalysed aerobic oxidative coupling of phosphites and alcohols *via in situ* iodophosphate formation

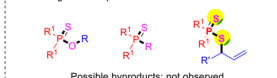
Alejandro Fonseca, Carlos Marquez and Dirk De Vos*

2295



R-OH: 1°, 2°, 3° allylic, benzyl and aliphatic alcohols

Precise regulation of potential side reactions



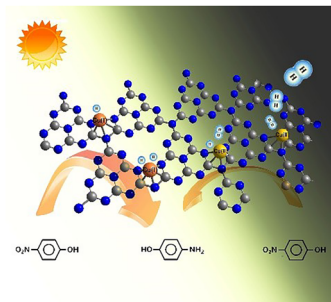
Possible byproducts: not observed

- ✓ Catalyst or solvent-free
- ✓ Atom and step economic
- ✓ Available starting materials
- ✓ Gram scale synthesis
- ✓ Water as sole byproduct
- ✓ Formation of four chemical bonds
- ✓ Broad substrate scopes
- ✓ Detailed mechanistic studies

The one-step formation of four chemical bonds toward dithiophosphinates *via* a multicomponent reaction

Shangyuan Li, Xiaoyu Yan, Xinyu Chen, Tianyuan Li and Xiantao Ma*

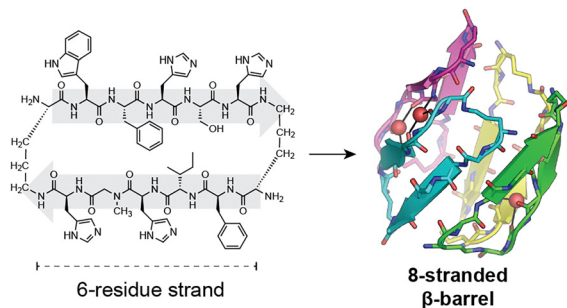
2300



A single-site Cu(II/I) transition initiated by photo-doping for enhanced hydrogenation activity

Qilong Liu, Jixian Wang, Qin Liu* and Wentuan Bi*

2304



β -barrels from short macrocyclic peptides

Viet Thuc Dang, Michael W. Martynowycz, Dan McElheny and Andy I. Nguyen*

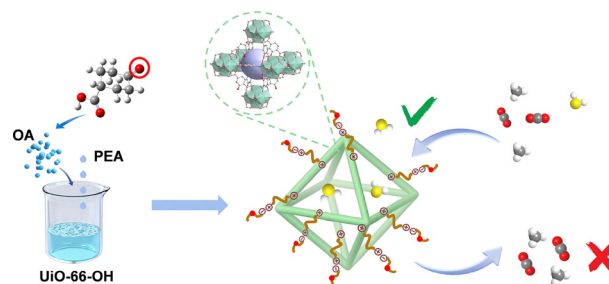


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2309

One-step synthesis of porous ionic liquids via proton transfer for natural gas purification

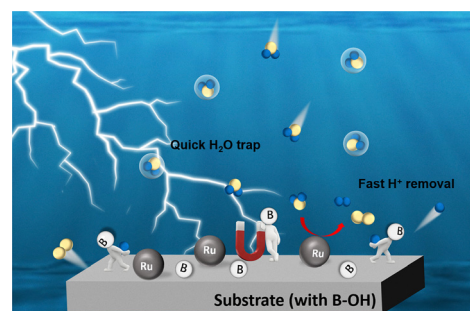
Huiqin Xu, Zixuan Xu, Qing Zhao, Keyi Huang, Chengqi Zhao, Kecheng Jie, Xiaomin Zhang,* Leizhi Zheng* and Youting Wu*



2313

Breaking hydrogen-bonding confinement with B–OH groups to accelerate proton transfer during oxygen evolution

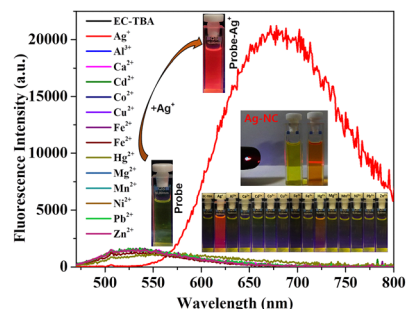
Jiaqi Zheng, Zhongyao Zhang, Feiting Zhang and Lei Zhang*



2318

Turn-on ratiometric Ag⁺ sensing aids *in situ* synthesis of NIR emissive silver nanoclusters

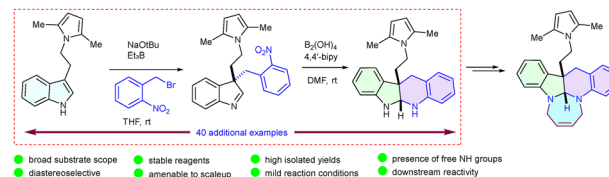
Palani Yuvaraj, Jayaraman Narayanan, Joseph Ajantha, Masiyappan Karuppusamy, Muthuramalingam Prakash, Jonalagadda Raghava Rao and Shanmugam Easwaramoorthi*



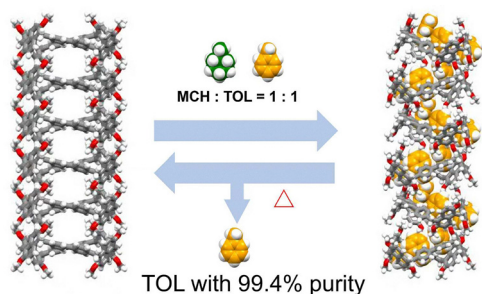
2322

Synthesis of indoline-2,3-fused tetrahydroquinolines bearing two free N–H groups using a protecting-group-free approach

Raju Chouhan and Sajal Kumar Das*



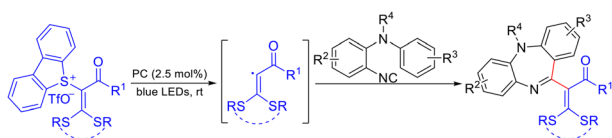
2326



Highly selective separation of toluene/methylcyclohexane using clamparene-based 3D porous crystals

Zhenyu Li, Jingxiong Jiang, Xiaoxi Jia, Ke Wang, Wenjing Shi, Wen-Juan Qu, Qi Lin, Tai-Bao Wei and Bingbing Shi*

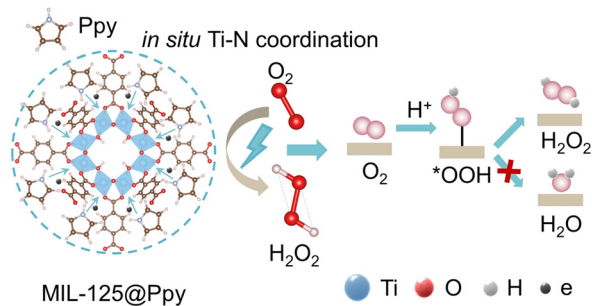
2330



Visible-light-induced generation of alkenyl radicals from alkenyl sulfonium salts: direct synthesis of 11-alkenyl-substituted dibenzodiazepines

Jie Wang, Xue-Cen Xu, Yue Gong, Yu-Xuan Meng and Yu-Long Zhao*

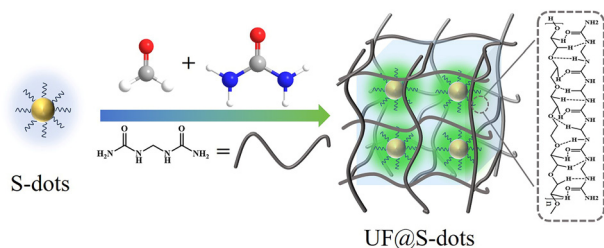
2335



Stable acidic H_2O_2 electrocatalysis via *in situ* Ti-N bridging sites

Yuxiang Zhang, Shan Ding* and Sheng Chen*

2339



Fabrication of long-lived afterglow composites of sulfur nanodots through a melt-injection reaction

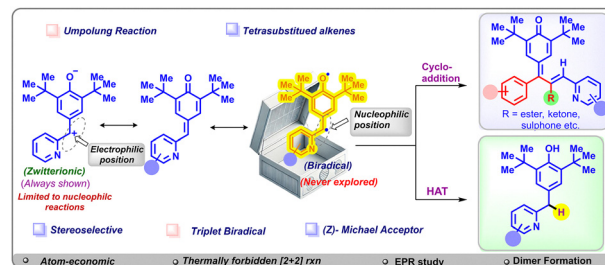
Ran Li, Sihang Huang, Yongqing Zhai* and Zhenguang Wang*



2343

Experimental and spectroscopic evidence of the hidden triplet transition state of quinone methide: a new reactivity paradigm

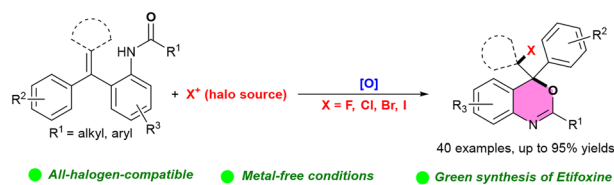
Shashikant Tiwari, Ritika Sharma and Diwan S. Rawat*



2348

Metal-free oxidative all-halogen-compatible halogenation of methylenecyclopropane for accessing benzoxazines

Ying-Ying Geng, Ke-Jiao Li, Xin-Yue Xie, Peng Huang,* Cheng-Tao Feng* and Fan Teng*



2352

Copper(II)-mediated deoxychlorination synthesis of glycosyl chlorides from glycosyl hemiacetals

Shubhi Dwivedi, Soumyadip Dey and Abhijit Sau*

