

ChemComm

Chemical Communications

rsc.li/chemcomm

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(3) 243-354 (2024)



Cover

See Kosuke Okeyoshi *et al.*, pp. 280–283. Image reproduced by permission of Kosuke Okeyoshi from *Chem. Commun.*, 2024, 60, 280.



Inside cover

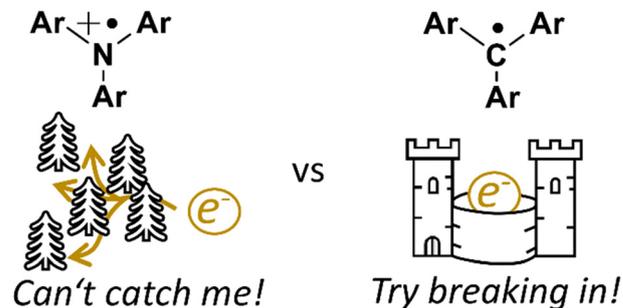
See Stephen J. Butler, Helen Willcock *et al.*, pp. 284–287. Image reproduced by permission of Stephen Butler from *Chem. Commun.*, 2024, 60, 284. Cover artwork designed by Samantha Bodman and Graeme Pratt.

HIGHLIGHT

252

Structure–property–function relationships of stabilized and persistent C- and N-based triaryl radicals

Anna Vasiļevska and Tomáš Slanina*



FEATURE ARTICLE

265

Wafer-scale synthesis of two-dimensional ultrathin films

Amresh Kumar Singh, Baishali Thakurta, Anupam Giri* and Monalisa Pal*



Environmental Science: Atmospheres

GOLD
OPEN
ACCESS

Connecting communities and inspiring new ideas



Open Access Article. Published on 02 January 2024. Downloaded on 5/28/2026 7:22:16 AM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

rsc.li/submittoEA

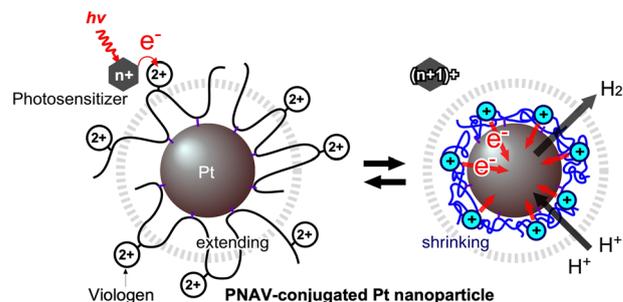
Fundamental questions
Elemental answers



280

Precise design of copolymer-conjugated nanocatalysts for active electron transfer

Reina Hagiwara, Shun Nishimura and Kosuke Okeyoshi*



284

A dual encapsulation strategy to generate anion-responsive luminescent lanthanide hydrogels

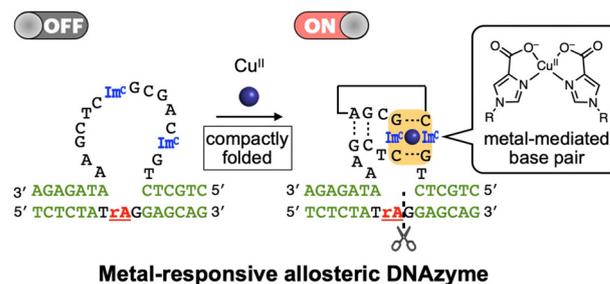
Samantha E. Bodman, Colum Breen, Annaliese Rebecca Hambleton, Stephen J. Butler* and Helen Willcock*



288

Metal-dependent activity control of a compact-sized 8–17 DNAzyme based on metal-mediated unnatural base pairing

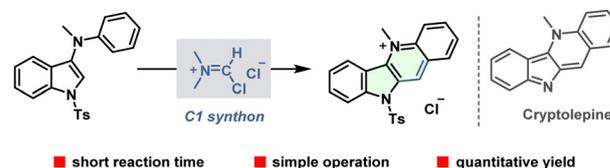
Yusuke Takezawa,* Lingyun Hu, Takahiro Nakama and Mitsuhiko Shionoya*



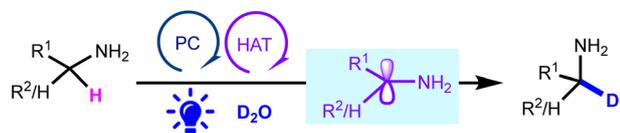
292

Intramolecular trapping of an iminium salt: rapid construction of quindoline derivatives

Pan Zhou, Senhui Wu, Kaikai Niu, Hongjian Song,* Yuxiu Liu, Jingjing Zhang* and Qingmin Wang*



296

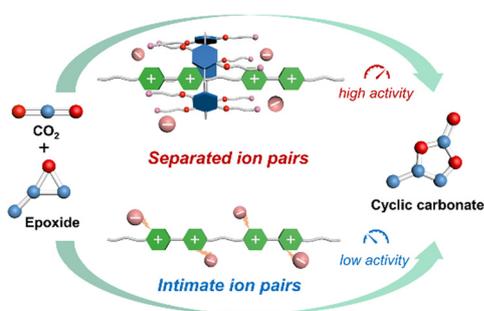


- Harnessing α -amino radical for reversible H/D exchange
 - High deuteration level
 - High regio- and chemo-selectivity
 - Mild and cost-effective organophotoredox and HAT catalysis
- 47 examples
up to 100 D%

Organophotocatalytic α -deuteration of unprotected primary amines *via* H/D exchange with D₂O

Xiang Meng, Yue Dong, Qiangqiang Liu and Wei Wang*

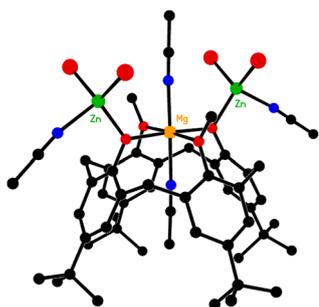
300



Pillar[5]arene-segregated ion pairs for enhanced cycloaddition of epoxides with CO₂

Yidan Zhou, Zejiang Liu, Zhiyao Yang, Yuexuan Zheng, Maoxia Yang, Wen Feng, Xiaowei Li* and Lihua Yuan*

304



Mixed-magnesium/zinc calix[4]arene complexes: structure, and ring opening polymerisation studies

Henry J. S. Banks, Josef W. A. Frese, Mark R. J. Elsegood and Carl Redshaw*

308



Rapid and directly interpretable antimicrobial susceptibility profiling by continuous microvolume-electroanalysis of ferricyanide-mediated bacterial respiration

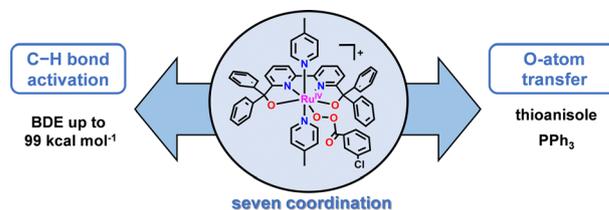
Krittamate Buppasirakul, Wipa Suginta* and Albert Schulte*



312

Structure and reactivity of a seven-coordinate ruthenium acylperoxo complex

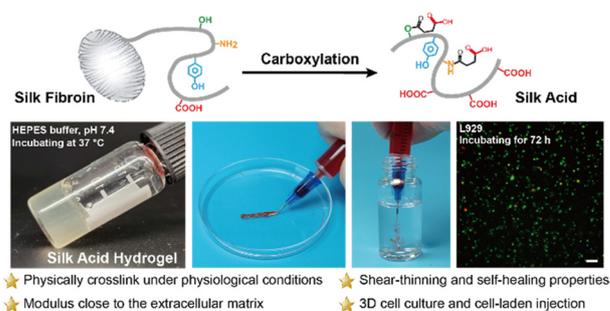
Rui Wang, Yunling Pan, Sushan Feng, Chenyi Liang, Jianhui Xie, Tai-Chu Lau and Yingying Liu*



316

Injectable cell-laden silk acid hydrogel

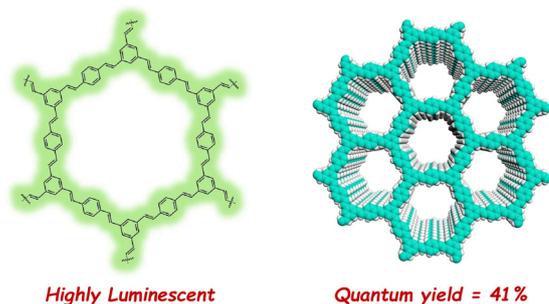
Ziyang Sun, Haoran Liu, Dandan Dai, Hao Lyu, Ruochuan Huang, Wenzhao Wang and Chengchen Guo*



320

Highly luminescent olefin-linked covalent organic frameworks

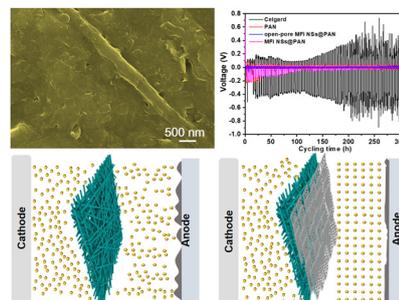
Xinyu Wu, Lina Zong and Ning Huang*



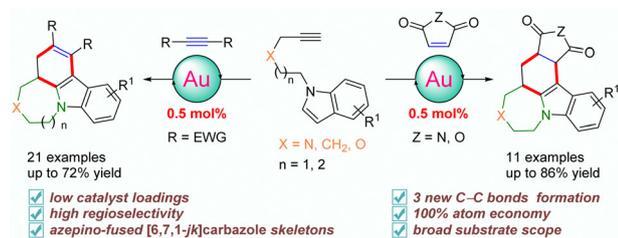
324

An open-pore MFI zeolite nanosheet-modified separator with Li-ion flux regulation for lithium-metal batteries

Yunyun Zhai, Yunqin Wu, Junlu Sheng, Haiqing Liu,* Zhenpeng Huang, Qiang Xiao* and Lei Li*



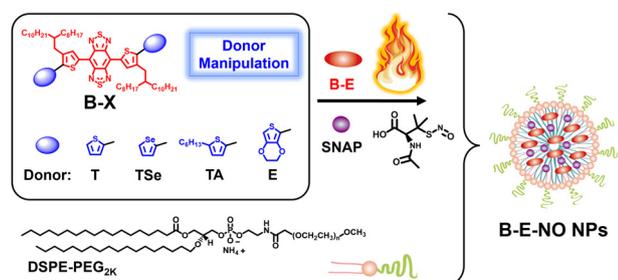
328



Cascade hydroarylation/Diels–Alder cycloaddition of alkynylindoles with electron-deficient alkynes and alkenes

Guang-Chao Feng, Jun-Chi Li, Xiang Huang, Ji-Kai Liu, Bin Wu and Jin-Ming Yang*

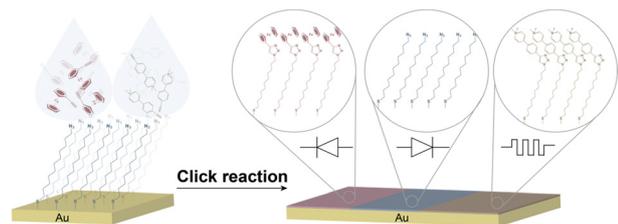
332



A noncovalent backbone planarization strategy increases the NIR-II extinction coefficients for gas/phototheranostic applications

Peng Cheng, Shangyu Chen,* Jiewei Li, Wan Yang, Pengfei Chen, Han Miao, Qingming Shen, Pengfei Sun* and Quli Fan*

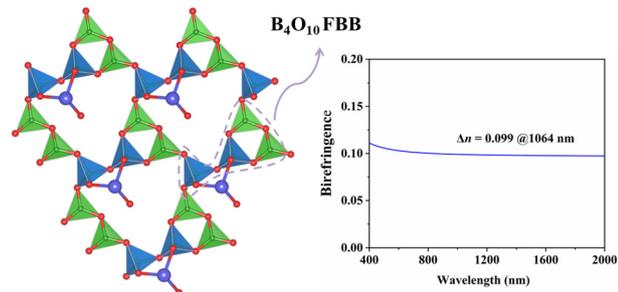
336



Fabrication of multi-functional molecular tunnelling junctions by click chemistry

Ningyue Chen, Zhenyu Yang, Jin-Liang Lin, Ziming Zhou, Yu Xie, Lejia Wang and Yuan Li*

340



PbTeB₄O₉: a lead tellurium borate with unprecedented fundamental building block [B₄O₁₀] and large birefringence

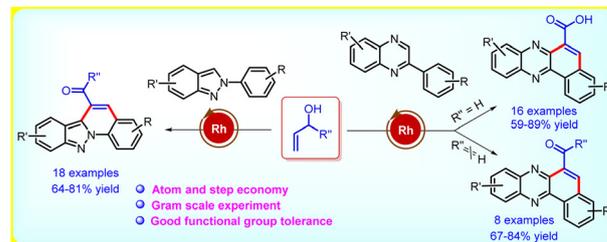
Ruonan Zhang, Abudukadi Tudi, Xia Yang, Xuping Wang, Zihua Yang, Shujuan Han* and Shilie Pan*



344

Rh(III)-catalyzed oxidative [4+2] annulation of 2-arylquinoxalines and 2-aryl-2*H*-indazoles with allyl alcohols

Dhananjay S. Nipate, Neha Meena, Prakash N. Swami, Krishnan Rangan and Anil Kumar*



348

Electronic structure engineering on Co-based metal–organic frameworks for concurrent electrocatalytic hydrogen generation and formate electrosynthesis

Mengying Liu, Qingsong Zhou, Tianlun Ren, Hongjie Yu, Kai Deng, Ziqiang Wang, Hongjing Wang, Liang Wang and You Xu*

