Chemical Science

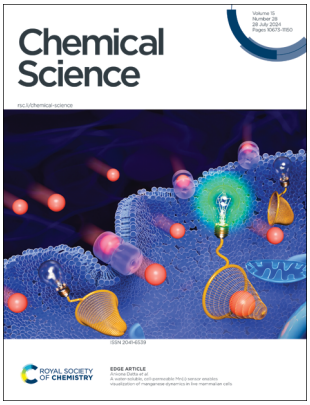
rsc.li/chemical-science

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

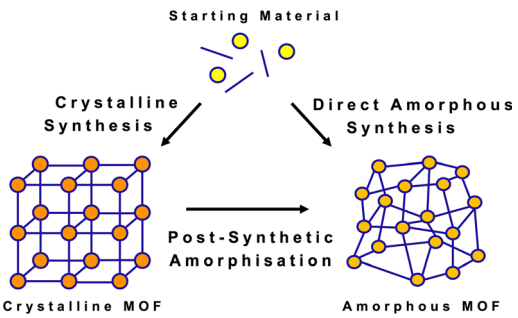
ISSN 2041-6539 CODEN CSHCBM 15(28) 10673–11150 (2024)

Cover
See Gustavo Fernández *et al.*, pp. 10745–10752. Image reproduced by permission of Gustavo Fernández from *Chem. Sci.*, 2024, **15**, 10745.

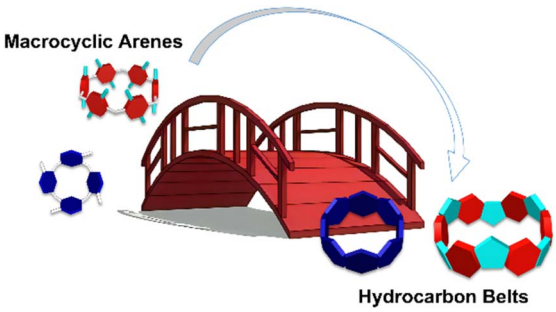


Inside cover
See Ankona Datta *et al.*, pp. 10753–10769. Image reproduced by permission of Ankona Datta from *Chem. Sci.*, 2024, **15**, 10753.

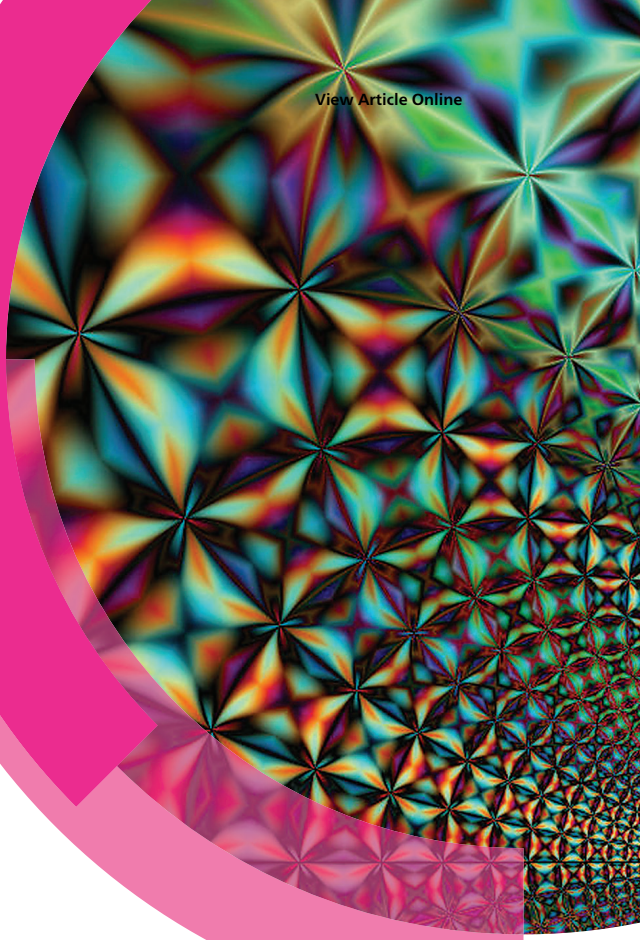
PERSPECTIVE



REVIEWS



ROYAL SOCIETY OF CHEMISTRY



RSC Advances

At the heart of open access for the global chemistry community

Editor-in-chief

Russell J Cox
Leibniz Universität Hannover, Germany

We stand for:

Breadth We publish work in all areas of chemistry and reach a global readership

Affordability Low APCs, discounts and waivers make publishing open access achievable and sustainable

Quality Research to advance the chemical sciences undergoes rigorous peer review for a trusted, society-run journal

Community Led by active researchers, we publish quality work from scientists at every career stage, and all countries

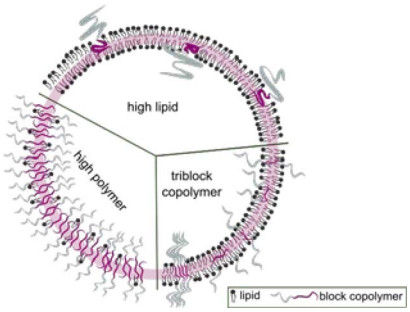
Submit your work now

rsc.li/rsc-advances

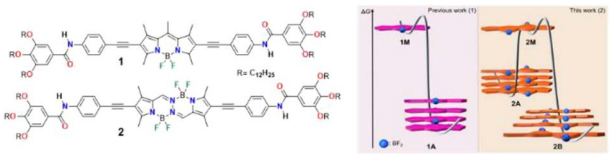
@RSC_Adv

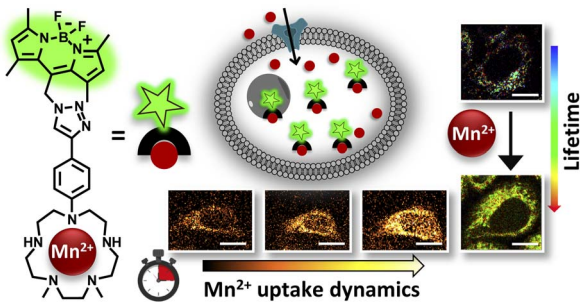
Registered charity number: 207890

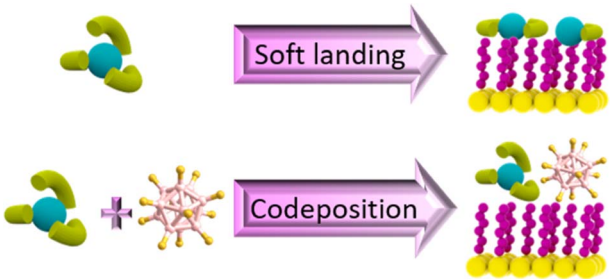
REVIEWS



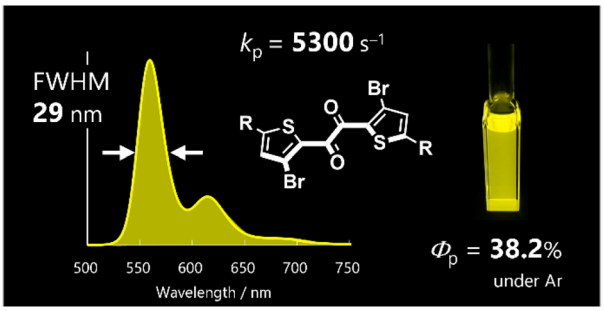
EDGE ARTICLES





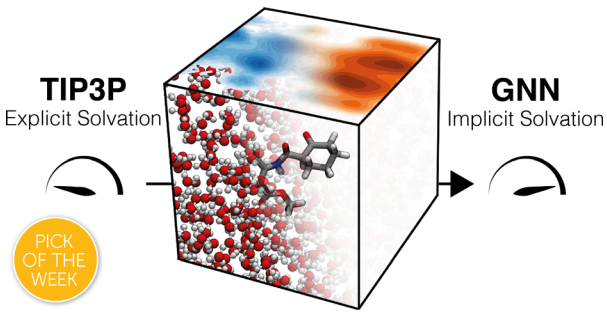


EDGE ARTICLES



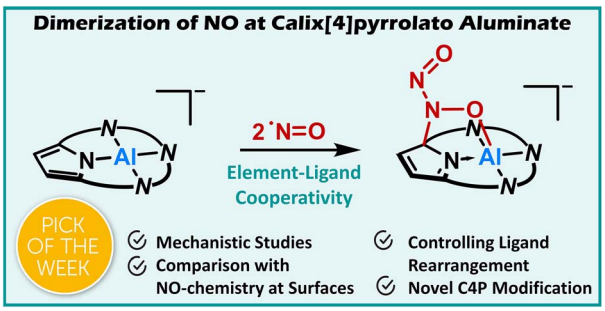
Fast, efficient, narrowband room-temperature phosphorescence from metal-free 1,2-diketones: rational design and the mechanism

Yosuke Tani,* Kiyoshi Miyata,* Erika Ou, Yuya Oshima, Mao Komura, Morihisa Terasaki, Shuji Kimura, Takumi Ehara, Koki Kubo, Ken Onda and Takuji Ogawa



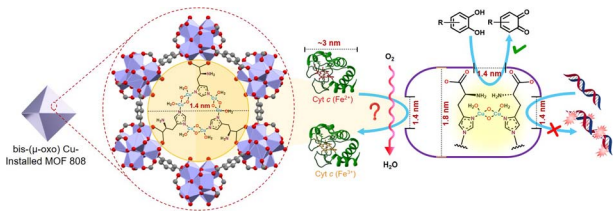
A general graph neural network based implicit solvation model for organic molecules in water

Paul Katzberger and Sereina Riniker*



Nitrogen monoxide and calix[4]pyrrolato aluminate: structural constraint enabled NO dimerization

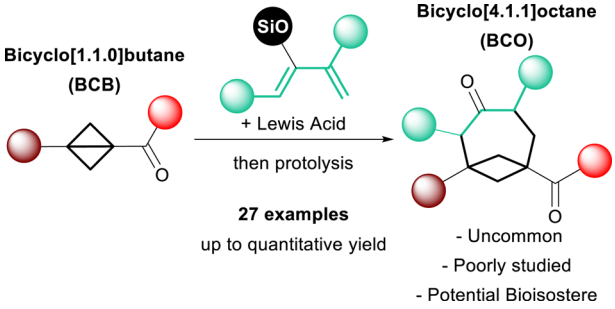
Senta J. Kohl, Lukas M. Sigmund, Manuel Schmitt and Lutz Greb*

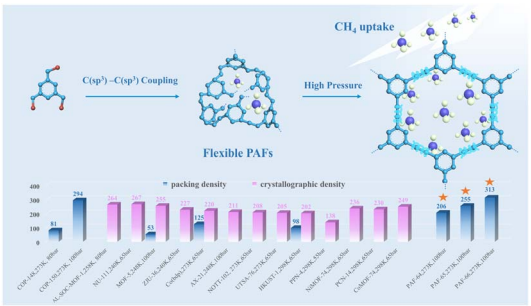


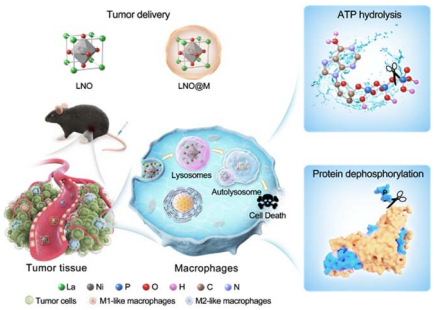
Approach of a small protein to the biomimetic bis-(μ-oxo) dicopper active-site installed in MOF-808 pores with restricted access perturbs substrate selectivity of oxidase nanozyme

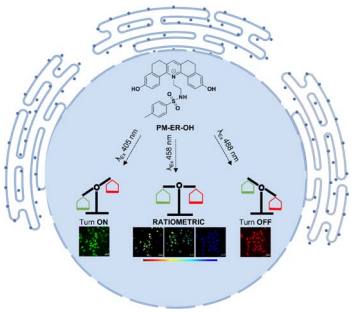
Rasmi V. Morajkar, Adarsh P. Fatrekar and Amit A. Vernekar*

EDGE ARTICLES



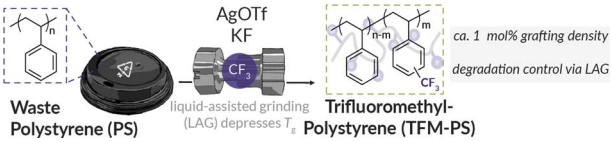


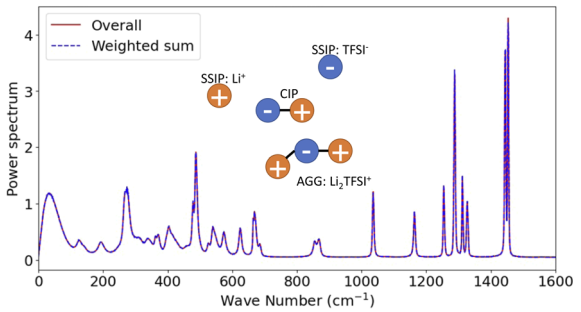


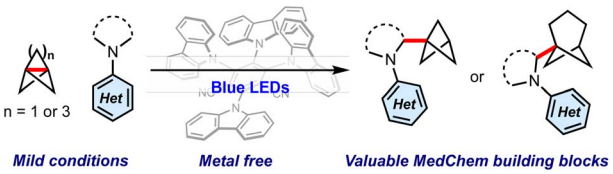


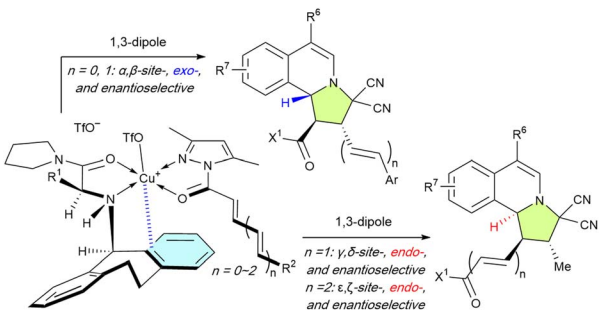
EDGE ARTICLES

EDGE ARTICLES

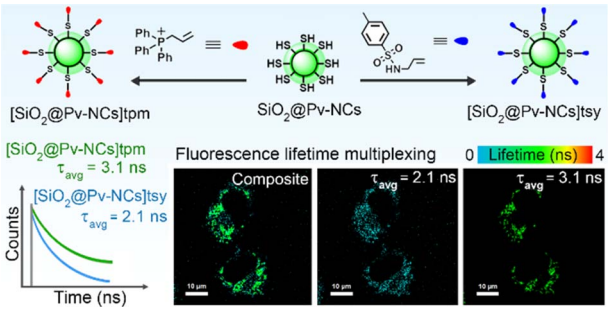






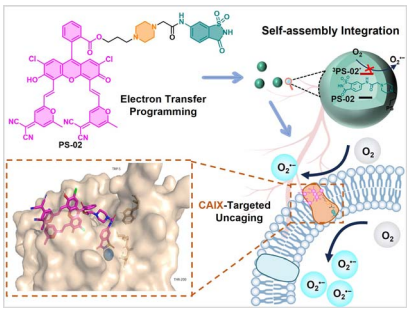


EDGE ARTICLES



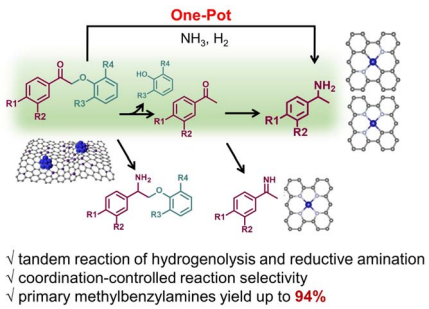
Surface functionalized perovskite nanocrystals: a design strategy for organelle-specific fluorescence lifetime multiplexing

Anik Kumar Dey, Subhadeep Das, Sharon Mary Jose, Sreejesh Sreedharan, Noufal Kandoth, Surajit Barman, Abhijit Patra,* Amitava Das* and Sumit Kumar Pramanik*



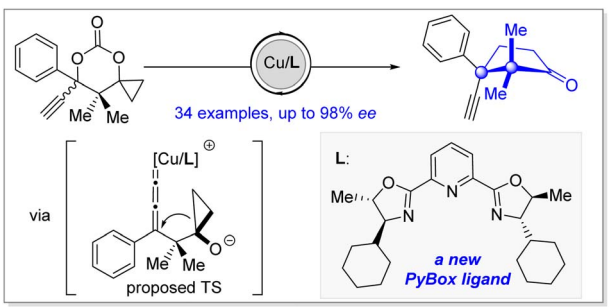
Self-assembly-integrated tumor targeting and electron transfer programming towards boosting tumor type I photodynamic therapy

Wenlong Chen, Zehui Wang, Gaobo Hong, Jianjun Du, Fengling Song* and Xiaojun Peng



Atomically dispersed cobalt catalysts for tandem synthesis of primary benzylamines from oxidized β-O-4 segments

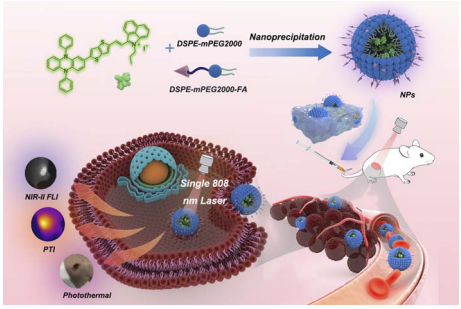
Sen Luan, Wei Wu, Bingxiao Zheng, Yuxuan Wu, Minghua Dong, Xiaojun Shen, Tianjiao Wang, Zijie Deng, Bin Zhang, Bingfeng Chen, Xueqing Xing, Haihong Wu,* Huizhen Liu* and Buxing Han*

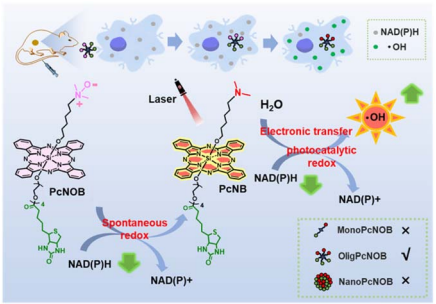


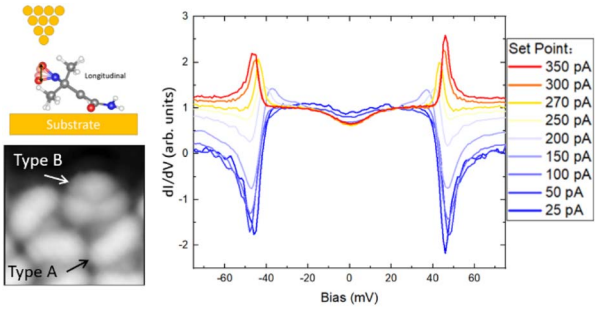
Catalytic asymmetric intramolecular propargylation of cyclopropanols to access the cuparane core

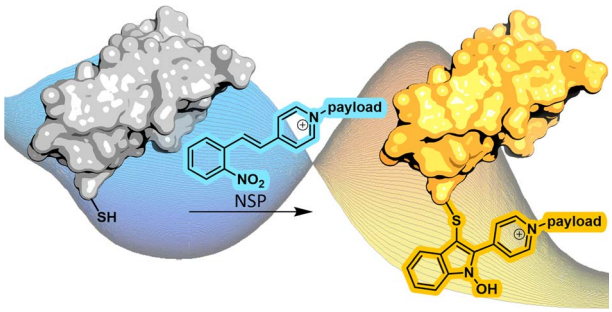
Yankun Zhao, Hongya Yan, Yulian Zhang, Tao Zhou, Mengxing Tian, Chongzhou Zhang, Shan Yuan, Hanyue Qiu,* Ling He and Min Zhang*

EDGE ARTICLES

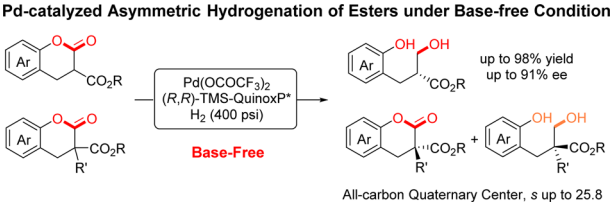


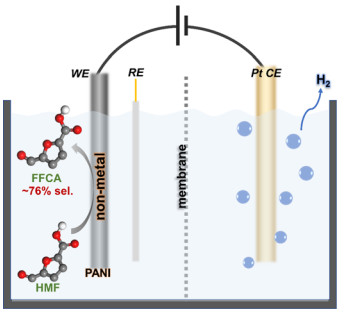


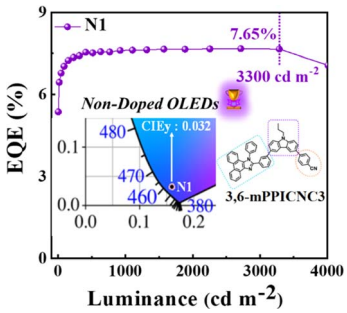


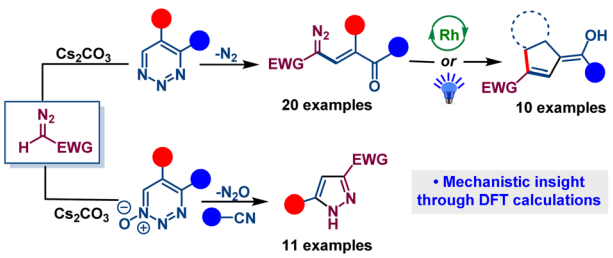


EDGE ARTICLES



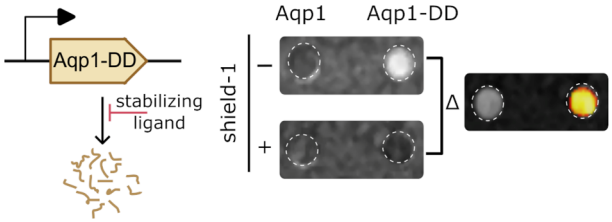


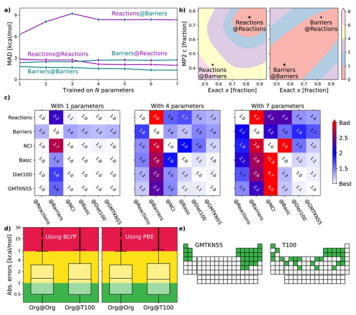


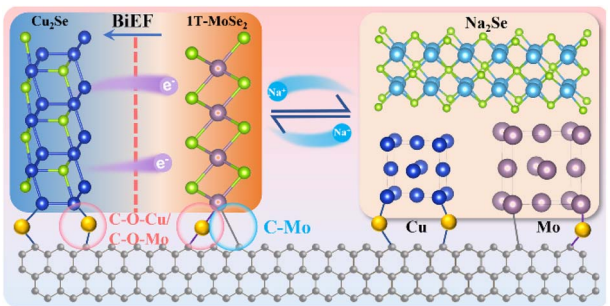


EDGE ARTICLES

EDGE ARTICLES







CORRECTIONS

CORRECTIONS

11148

Correction: Investing in entropy: the strategy of cucurbit[*n*]urils to accelerate the intramolecular Diels–Alder cycloaddition reaction of tertiary furfuryl amines

Karen de la Vega-Hernández, Marcos G. Suero* and Pablo Ballester*