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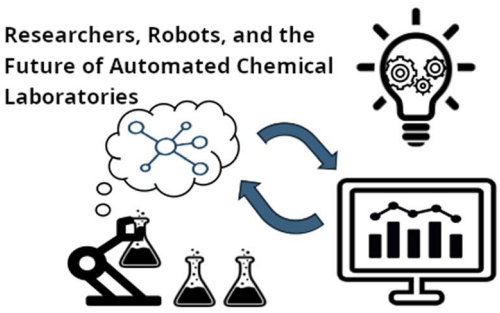
Inside cover
See Lauren Takahashi, Keisuke Takahashi *et al.*, pp. 15769–15780. Image reproduced by permission of Lauren Takahashi from *Chem. Sci.*, 2025, **16**, 15769.

EDITORIAL

PERSPECTIVES



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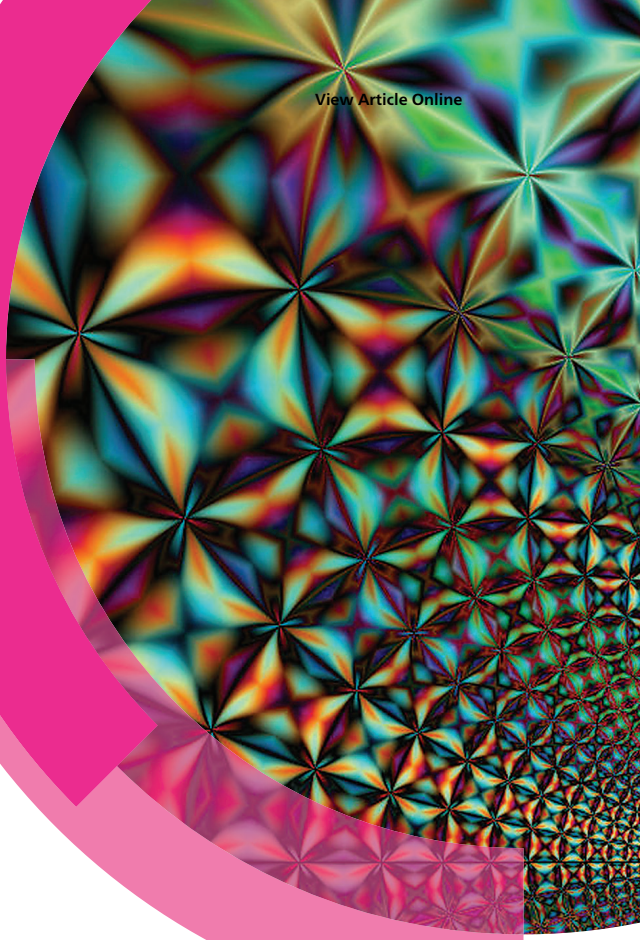

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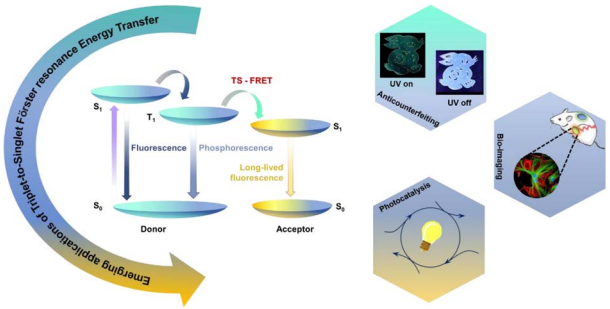
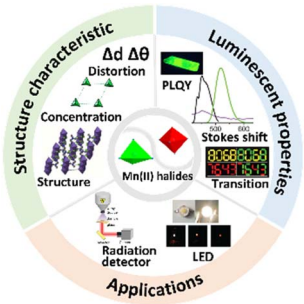
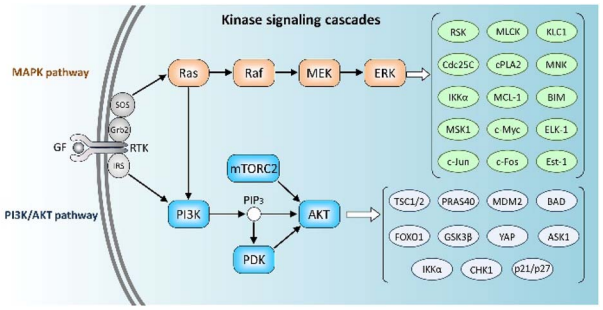
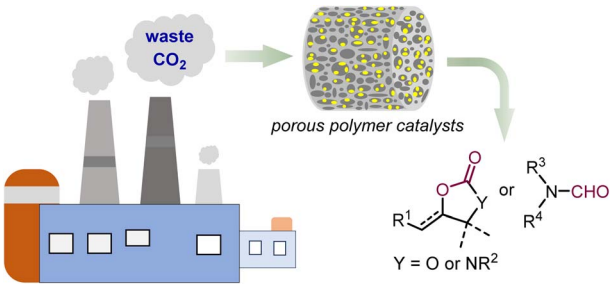




REVIEWS





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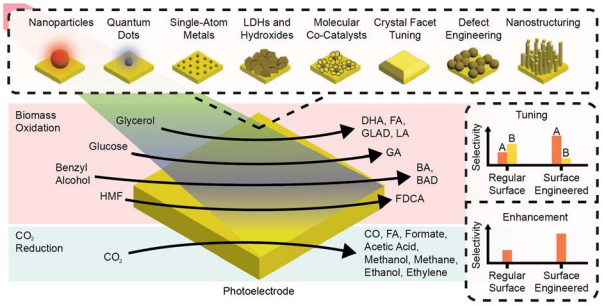
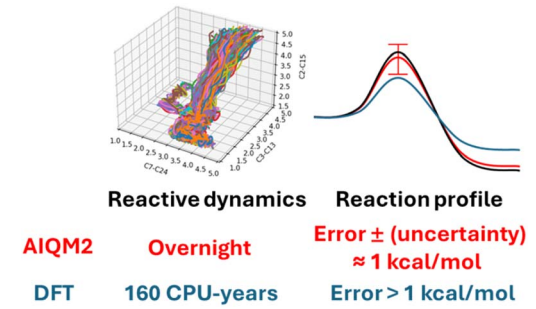


Surface engineering strategies for selectivity tuning and enhancement in photoelectrochemical biomass and CO_2 valorization

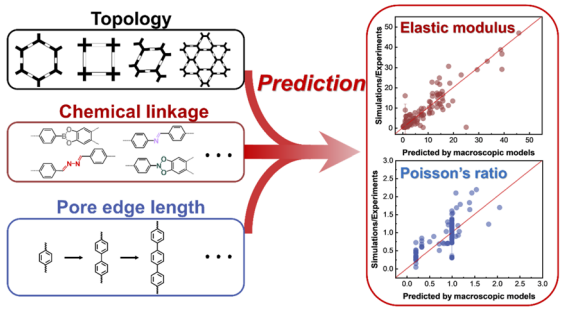
Yudhistira Tirtayasri Amrillah, Kaijian Zhu, Fani Rahayu Hidayah Rayanisaputri, Fita Widiyatun, Vivi Fauzia, Munawar Khalil, Fatwa F. Abdi* and Ferry Anggoro Ardy Nugroho*

EDGE ARTICLES



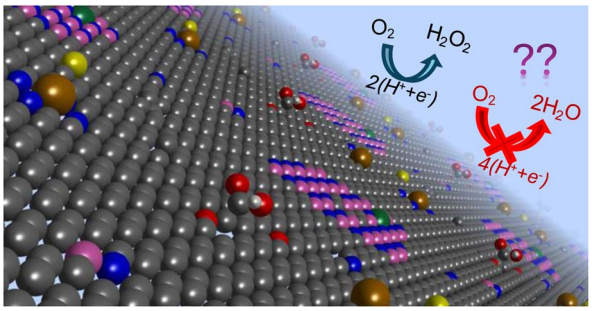
AIQM2: organic reaction simulations beyond DFT

Yuxinxin Chen and Pavlo O. Dral*



Intrinsic mechanical properties of two-dimensional covalent organic frameworks

Liangtao Xiong, Chengbin Fu, Jiaxin Tian, Yubo Geng, Lixin Han, Han Zhang and Haoyuan Li*



Selectivity trends in two-electron oxygen reduction: insights from two-dimensional materials

Samira Siahrostami*

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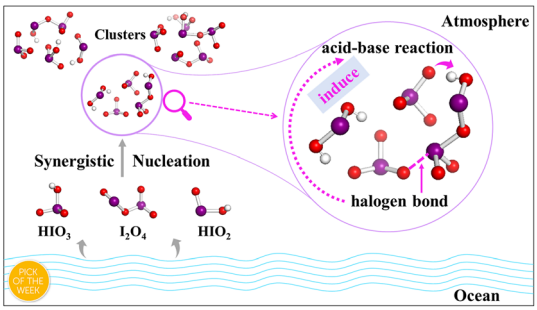

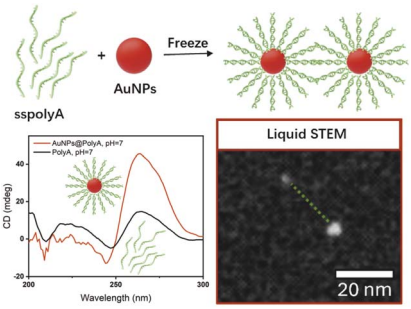

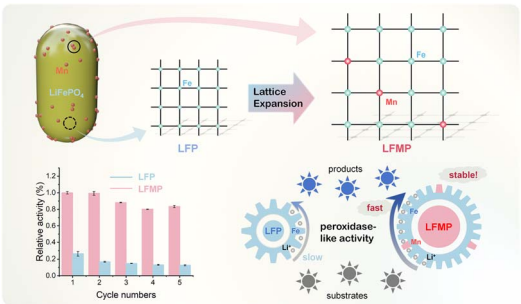

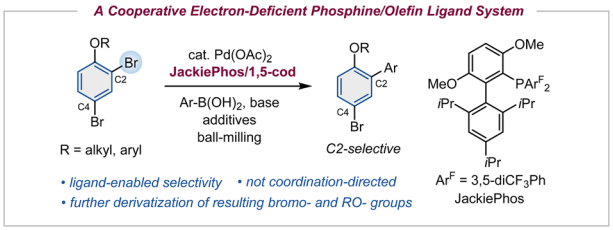

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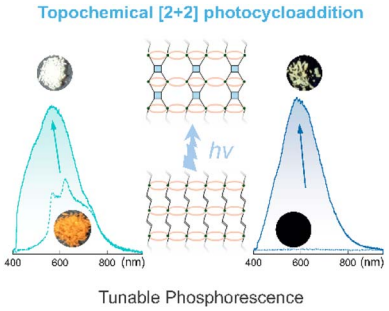

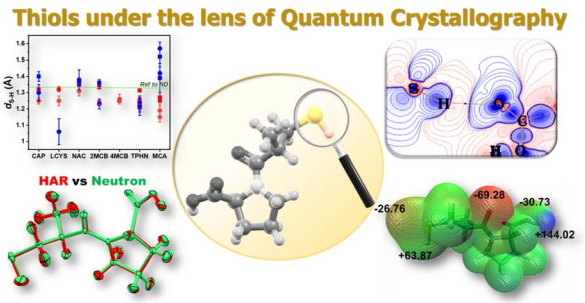

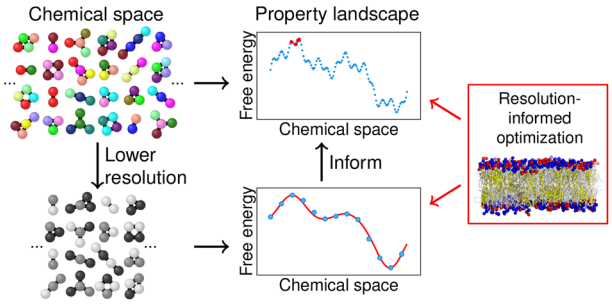

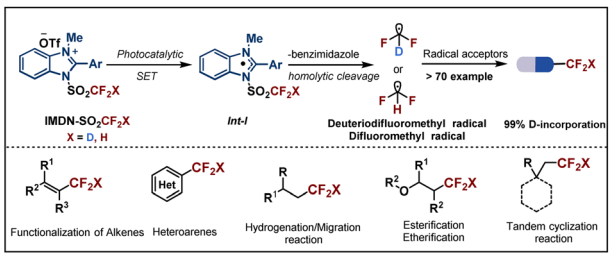

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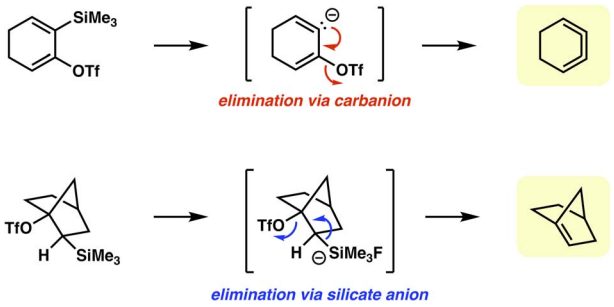
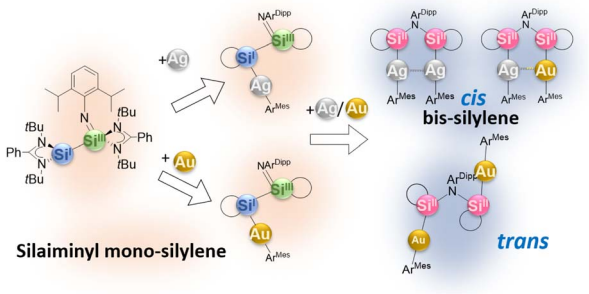


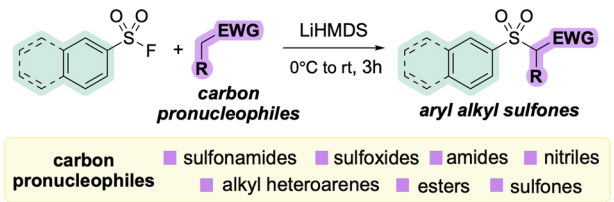
Mechanisms of Kobayashi eliminations for the generation of highly strained arynes, cyclic cumulenes, and anti-Bredt olefins

Zach G. Walters, Dominick C. Witkowski, K. N. Houk and Neil K. Garg*



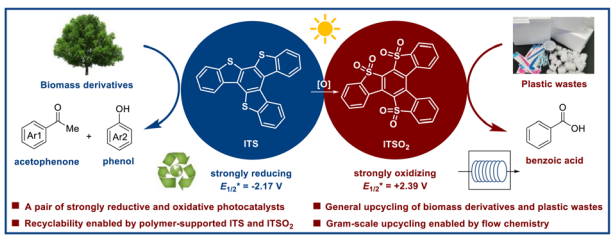
On-demand switching from mono-silylene to bis-silylene to access mono-, di- and mixed coinage metal complexes

Xiaofei Sun,* Da Jin, Ravi Yadav, Frederic Kraetschmer, Ralf Köppe and Peter W. Roesky*



Sulfur fluoride exchange with carbon pronucleophiles

Joseph R. Novicki,* Matthew D. Teeter, Neil J. Baldwin, Christopher W. am Ende, Thomas R. Puleo,* Alistair D. Richardson* and Nicholas D. Ball*



A pair of strongly reductive and oxidative photocatalysts for the general upcycling of biomass derivatives and plastic wastes

Hao Cui, Xiang Chen, Xiong She, Wen-Xin Su, Shi-Chao Chen and Xiao Zhang*

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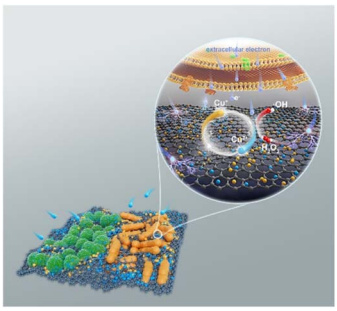

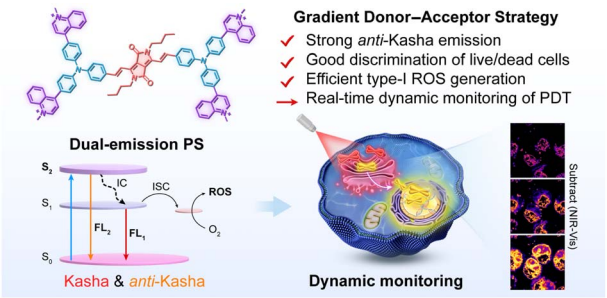

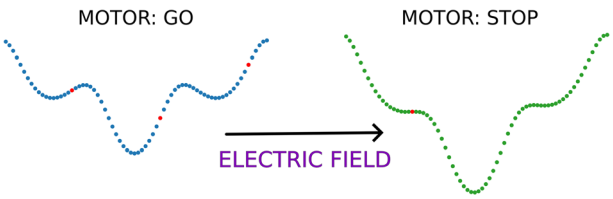

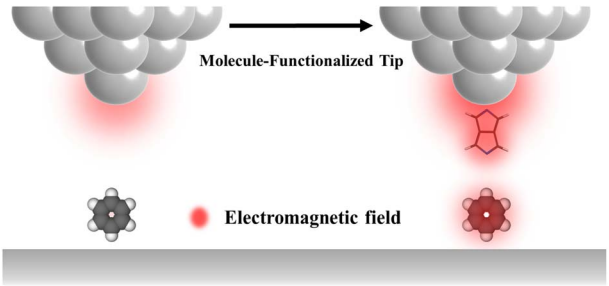

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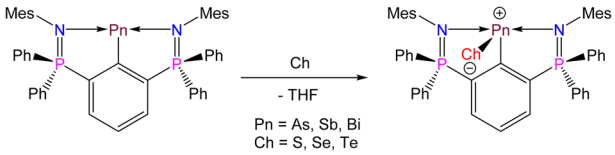

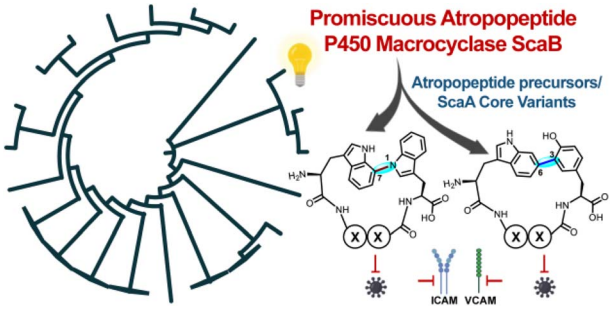

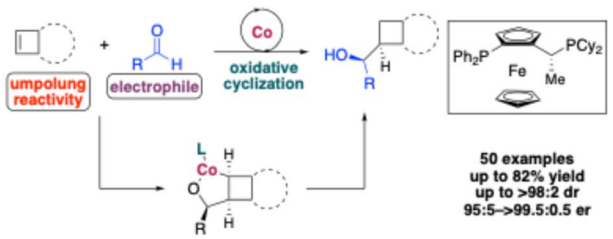

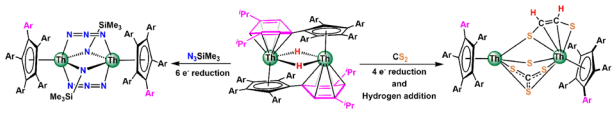

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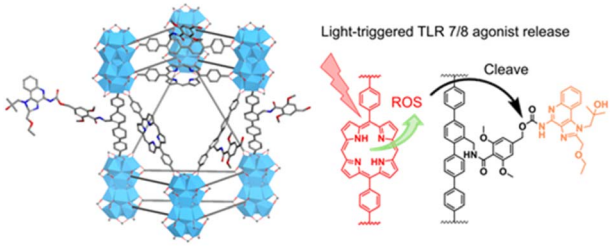

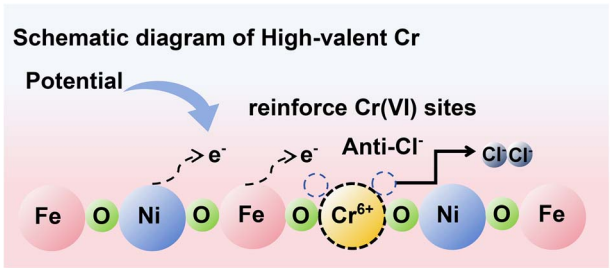

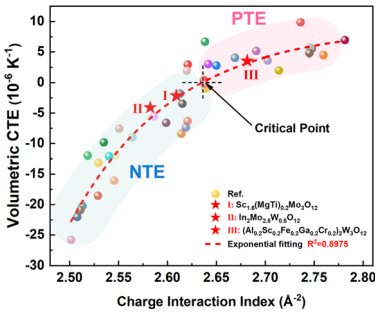

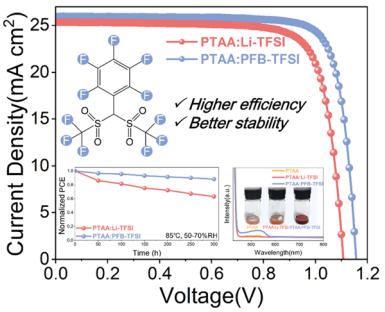

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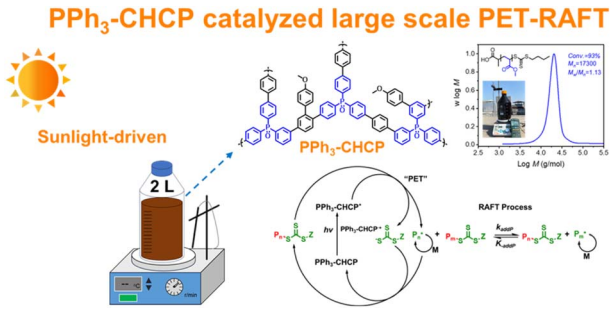

Sunlight-driven photoinduced electron/energy transfer-reversible addition-fragmentation chain transfer polymerization at a large scale

Zi-Hui Fan, Wei-Wei Fang, Yi-Xing Liu, Zheng-Hao Xiao, Jian-Kun Yu, Xu-Yi He, Xian-Zhen Wang, Xue-Ning Tang, Lei Xia,* Long-Xiang Tang* and Tao He*

CORRECTION

Correction: Unveiling the role of cobalt in the product regulation for CO_2 hydrogenation to light olefins over alumina-supported Co–Fe catalysts

Zhihao Liu, Wenlong Song, Peipei Zhang, Jiaming Liang,* Chengwei Wang, Chufeng Liu, Hanyao Song, Baojian Chen, Kangzhou Wang,* Guangbo Liu, Xiaoyu Guo, Yingluo He, Xinhua Gao, Jianli Zhang, Guohui Yang and Noritatsu Tsubaki*