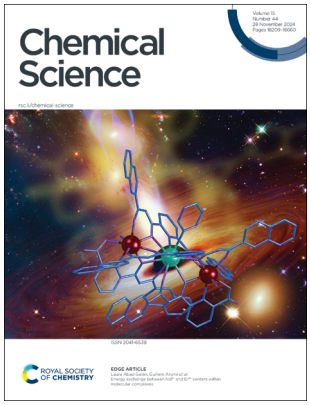
Chemical Science

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

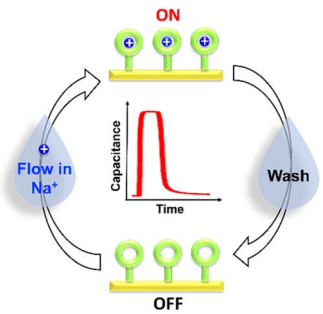
ISSN 2041-6539 CODEN CSHCBM 15(44) 18209–18660 (2024)



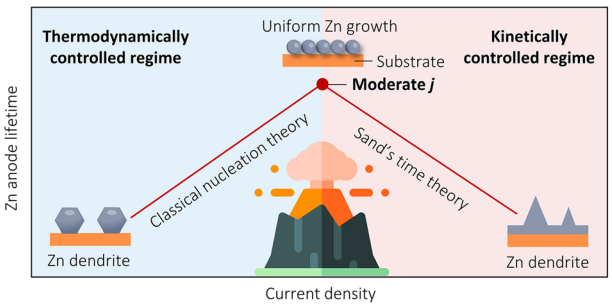
Cover
See Laura Abad Galán, Guillem Aromí *et al.*, pp. 18295–18302. Image reproduced by permission of Guillem Aromí from *Chem. Sci.*, 2024, **15**, 18295.

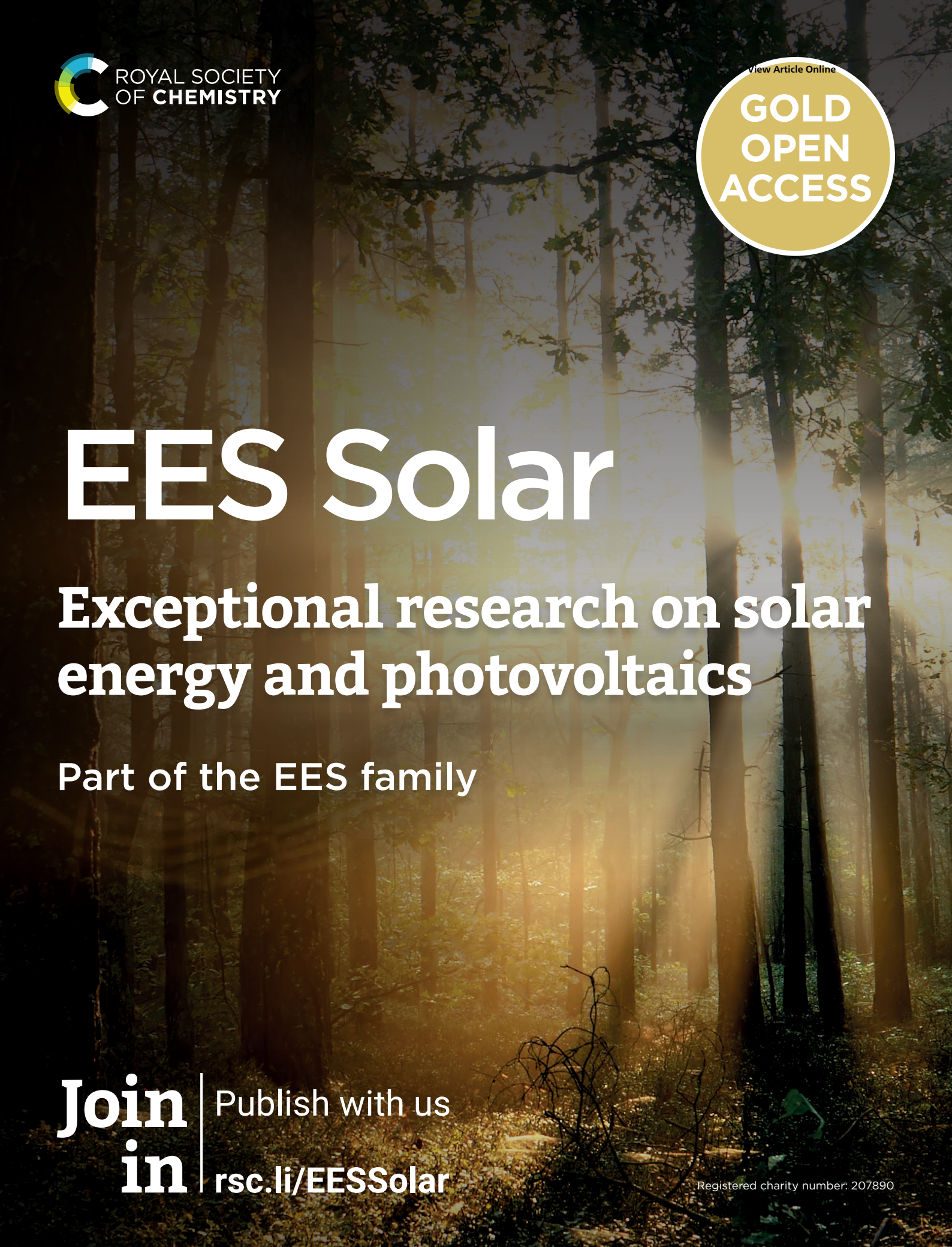
Inside cover
See Jun Cheng *et al.*, pp. 18303–18309. Image reproduced by permission of Jun Cheng from *Chem. Sci.*, 2024, **15**, 18303.

COMMENTARY

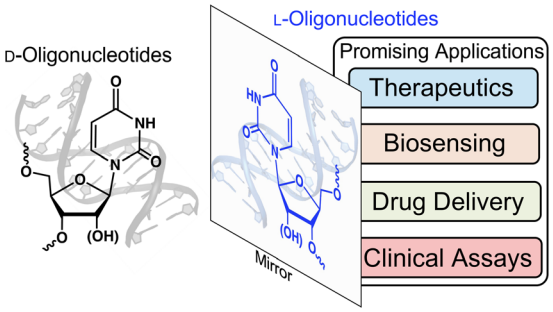


PERSPECTIVES

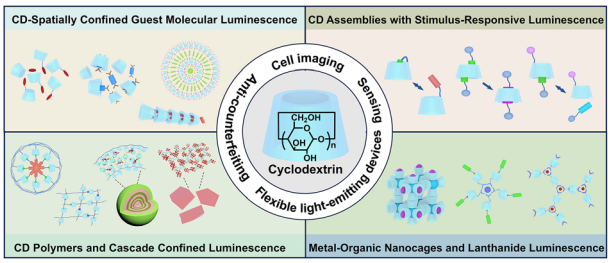


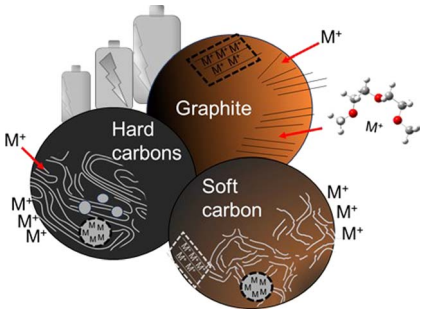

ROYAL SOCIETY OF CHEMISTRY
View Article Online
GOLD OPEN ACCESS
EES Solar
Exceptional research on solar energy and photovoltaics
Part of the EES family
Join in
Publish with us
rsc.li/EESSolar
Registered charity number: 207890

PERSPECTIVES

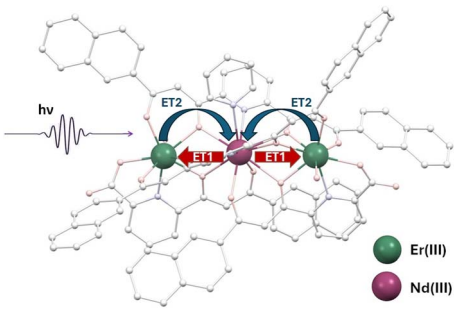


REVIEWS



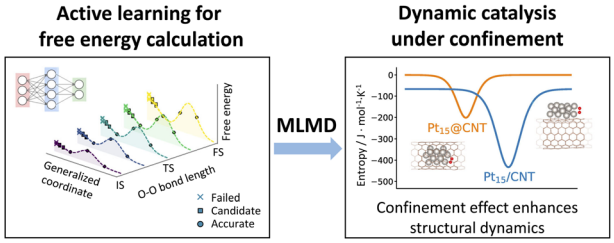


EDGE ARTICLES



EDGE ARTICLES

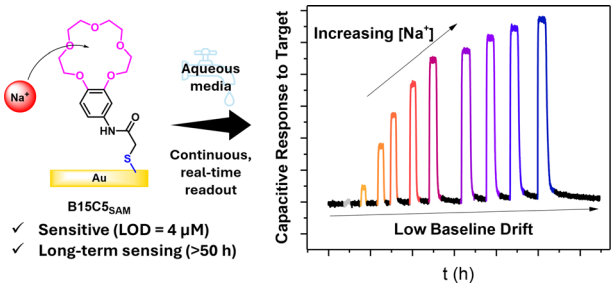
18303



Entropy in catalyst dynamics under confinement

Qi-Yuan Fan, Yun-Pei Liu, Hao-Xuan Zhu, Fu-Qiang Gong, Ye Wang, Weinan E, Xinhe Bao, Zhong-Qun Tian and Jun Cheng*

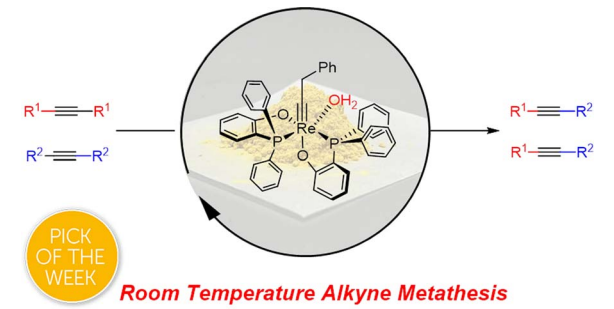
18310



Non-faradaic capacitive cation sensing under flow

Sophie C. Patrick, Robert Hein, Paul D. Beer and Jason J. Davis*

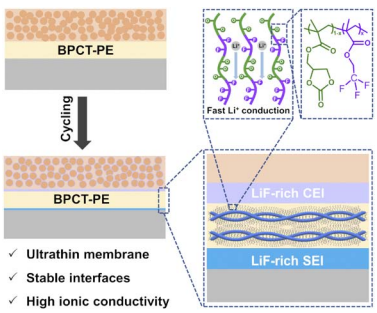
18318



Exploring efficient and air-stable d^2 Re(v) alkylidyne catalysts: toward room temperature alkyne metathesis

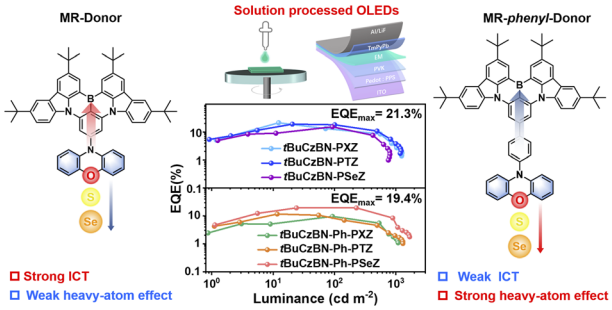
Mingxu Cui, Jie Huang, Long Yiu Tsang, Herman H. Y. Sung, Ian D. Williams* and Guochen Jia*

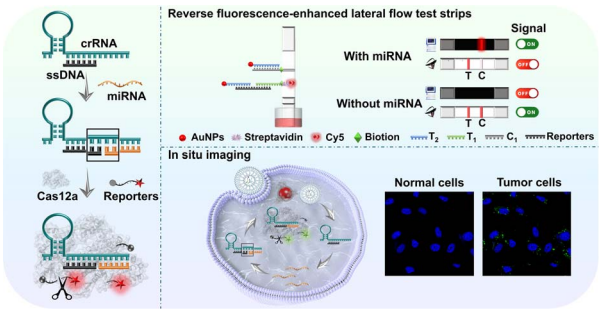
18327

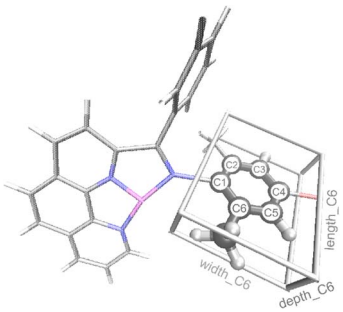


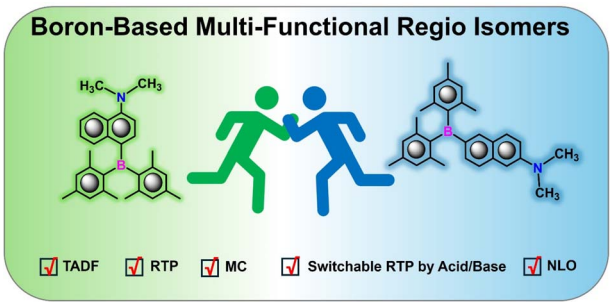
Molecular brush-based ultrathin polymer electrolytes with stable interfaces for high-voltage large-areal-capacity lithium metal batteries

Rongfeng Liao, Congping Li, Minghong Zhou, Ruliang Liu, Shaohong Liu* and Dingcai Wu*

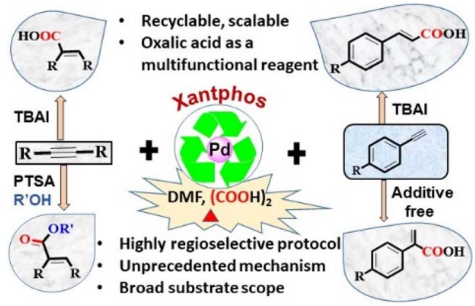






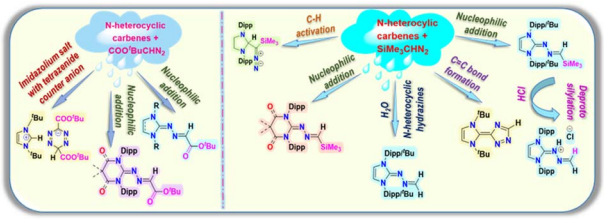


EDGE ARTICLES



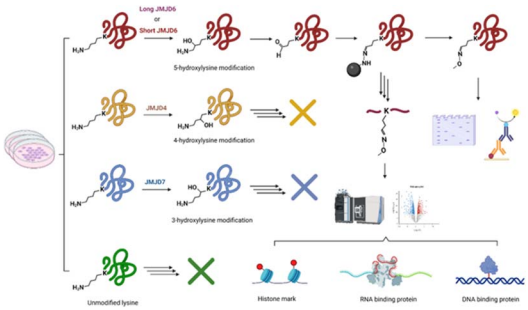
Pd/C-catalyzed regiodivergent hydrocarboxylation and esterification of alkynes

Pushkar Mehara, Poonam Sharma, Rohit Bains, Ajay Kumar Sharma and Pralay Das*



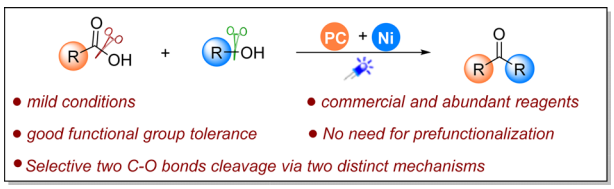
Uncovering diverse reactivity of NHCs with diazoalkane: C–H activation, C=C bond formation, and access to N-heterocyclic methylenehydrazine

Kajal Balayan, Himanshu Sharma, Kumar Vanka, Rajesh G. Gonnade* and Sakya S. Sen*



A constitutional isomer selective chemical proteomic strategy for system-wide profiling of protein lysine 5-hydroxylation

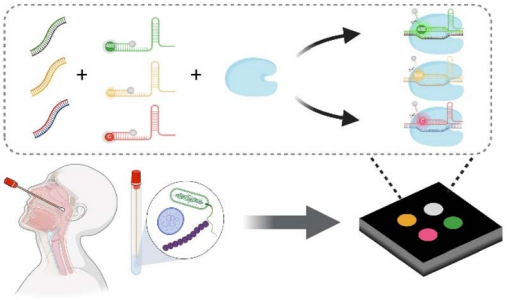
Yi-Cheng Sin, Meeyeon Park, Timothy J. Griffin, Jeongsik Yong* and Yue Chen*

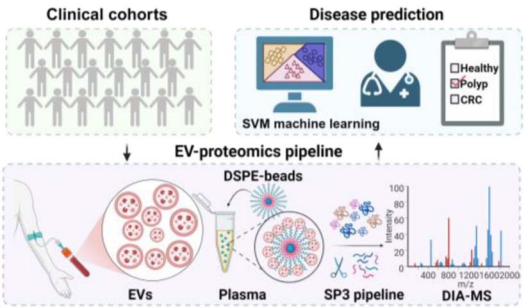


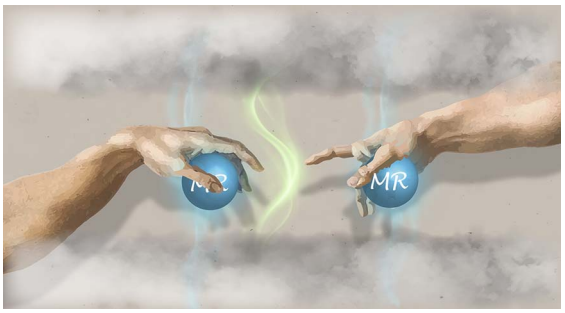
Direct synthesis of dialkyl ketones from deoxygenative cross-coupling of carboxylic acids and alcohols

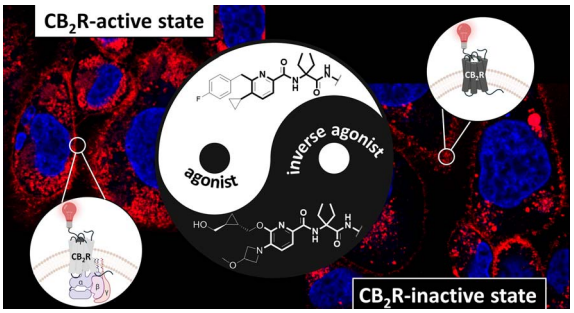
Bo Yang* and Ri-Yuan Tang*

EDGE ARTICLES



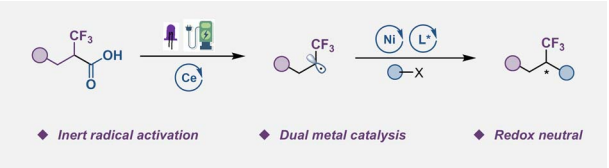


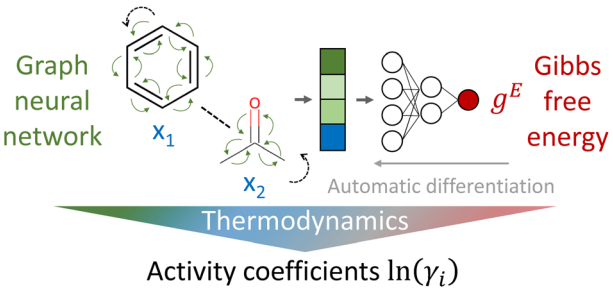


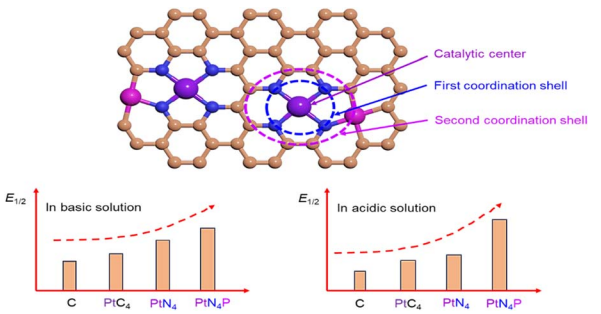


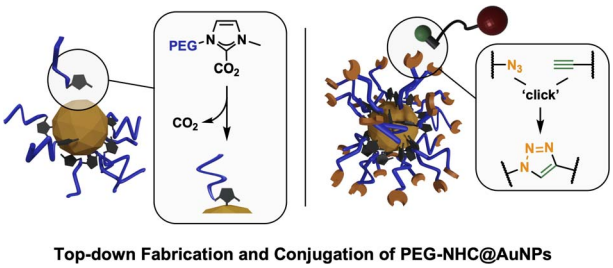
EDGE ARTICLES

EDGE ARTICLES



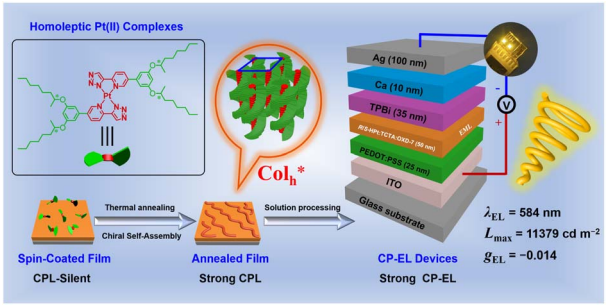






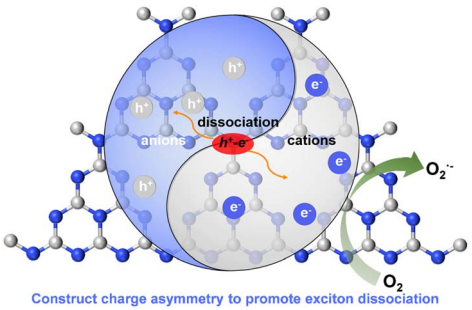
Top-down Fabrication and Conjugation of PEG-NHC@AuNPs

EDGE ARTICLES



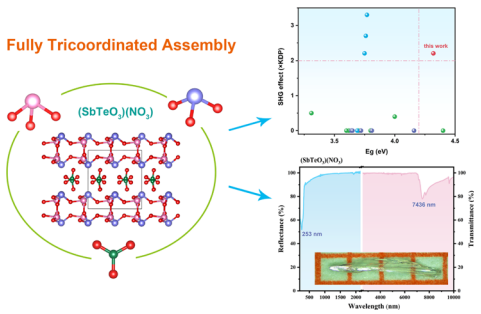
Efficient helical columnar emitters of chiral homoleptic Pt(II) metallomesogens for circularly polarized electroluminescence

Guo Zou, Zhenhao Jiang, Dong Li, Qihuan Li and Yixiang Cheng*



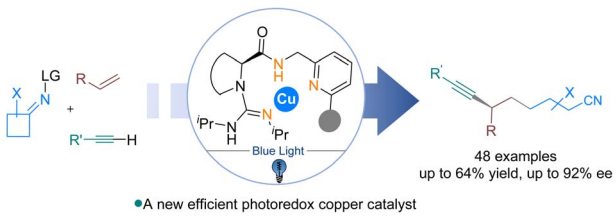
Boosting exciton dissociation in anion and cation co-doped polymeric semiconductor for selective oxidation reaction

Junkang Ge, Jun Zhao, Lei Li, Zhihao Li, Hui Wang,* Xiaodong Zhang* and Yi Xie



Fully tricoordinated assembly unveils a pioneering nonlinear optical crystal $(SbTeO_3)(NO_3)$

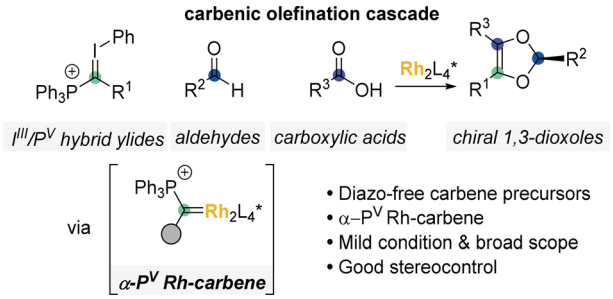
Bo Zhang, Chun-Li Hu, Jiang-Gao Mao and Fang Kong*

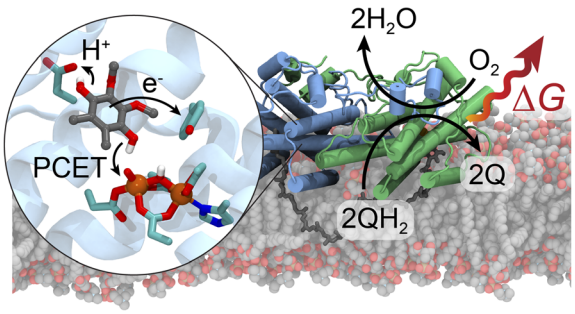


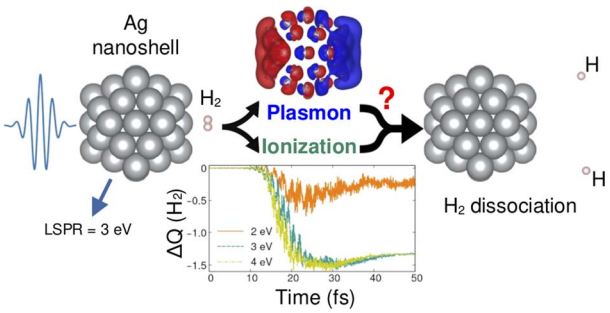
Photoinduced copper-catalyzed asymmetric cyanoalkylalkynylation of alkenes, terminal alkynes, and oximes

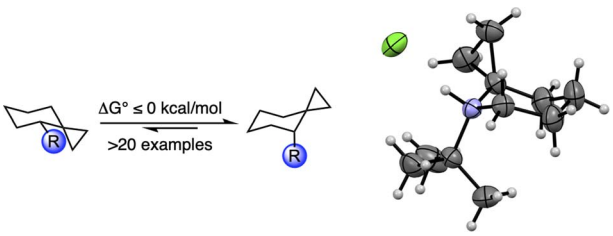
Shuang Xin, Jibang Liao, Qi Tang, Xiaoming Feng and Xiaohua Liu*

EDGE ARTICLES



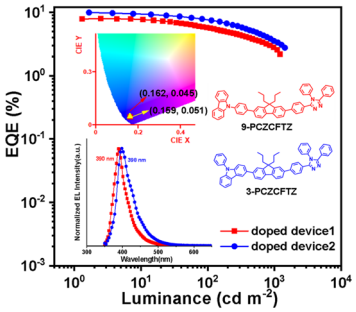






EDGE ARTICLES

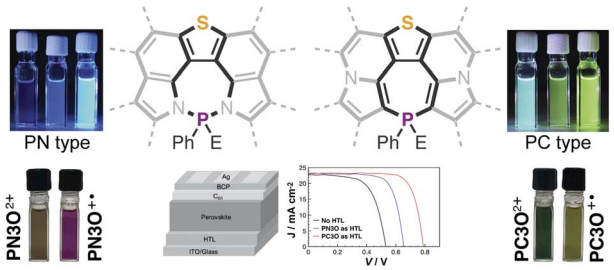
18601



Highly efficient pure organic near-ultraviolet (NUV) electro-fluorescent materials with high electron mobility and improved hole mobility

Huayi Zhou, Runze Wang, Mizhen Sun, Yannan Zhou, Li Zhang, Jingru Song, Qikun Sun, Shi-Tong Zhang,* Wenjun Yang and Shanfeng Xue*

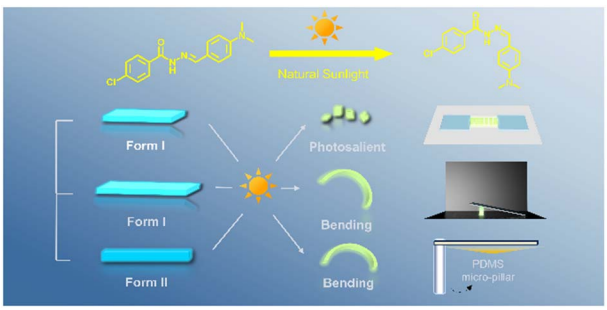
18608



Non-innocent P-centers in nonbenzenoid polycyclic aromatic molecules with tunable structures and properties

Can Li, Wei Zhou, Zhaoxin Liu, Rong Gao, Qixi Mi, Zhijun Ning* and Yi Ren*

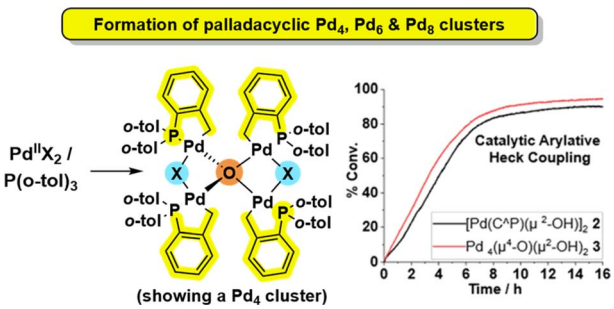
18617



Dynamic organic crystals as exceptionally efficient artificial natural light-harvesting actuators

Jiaxuan Zhu, Wenbo Wu, Haoqiang Qi, Yutong Yao, Hui Yu, Xin Huang, Na Wang,* Ting Wang* and Hongxun Hao*

18627



The ubiquitous P(*o*-tol)$_3$ ligand promotes formation of catalytically-active higher order palladacyclic clusters

David R. Husbands, Theo Tanner, Adrian C. Whitwood, Neil S. Hodnett, Katherine M. P. Wheelhouse and Ian J. S. Fairlamb*

EDGE ARTICLES