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.

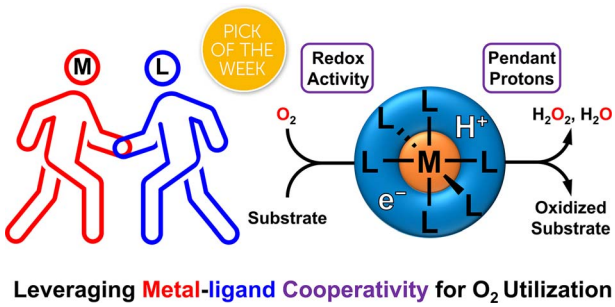
IN THIS ISSUE

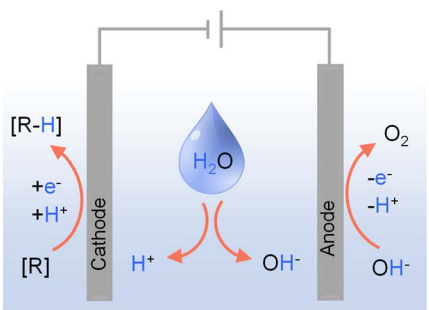
ISSN 2041-6539 CODEN CSHCBM 15(40) 16395–16806 (2024)

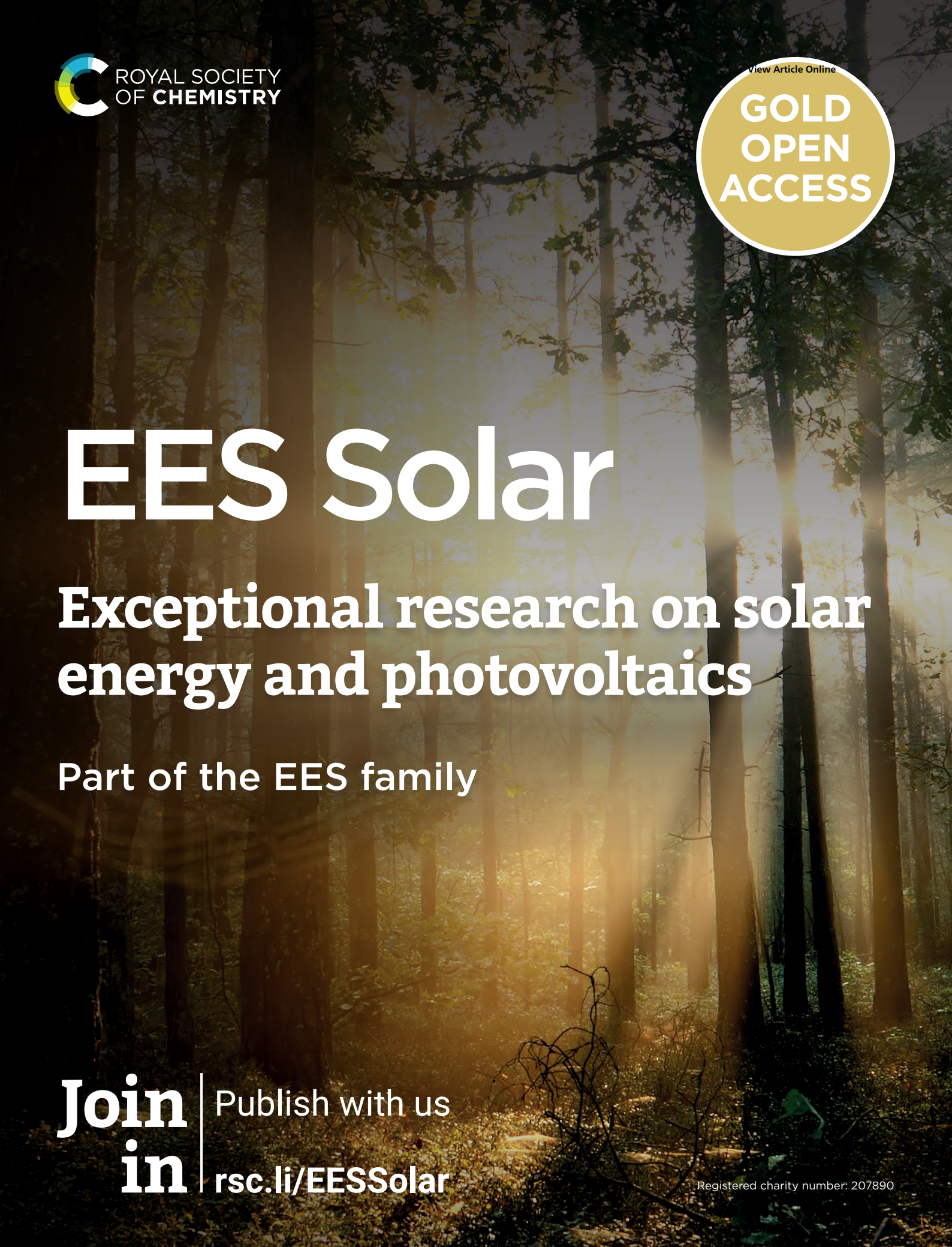
Cover
See Xiaoyu Wu and Jianwen Jiang, pp. 16467–16479. Image reproduced by permission of Xiaoyu Wu and Jianwen Jiang from *Chem. Sci.*, 2024, **15**, 16467.

Inside cover
See Paola Posocco, Volodymyr Sashuk *et al.*, pp. 16480–16484. Image reproduced by permission of Volodymyr Sashuk from *Chem. Sci.*, 2024, **15**, 16480. Artwork created by Sofiya Sashuk.

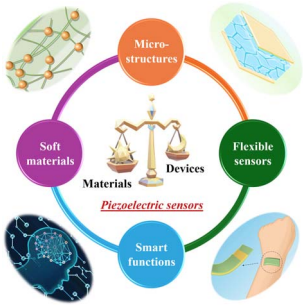
PERSPECTIVES



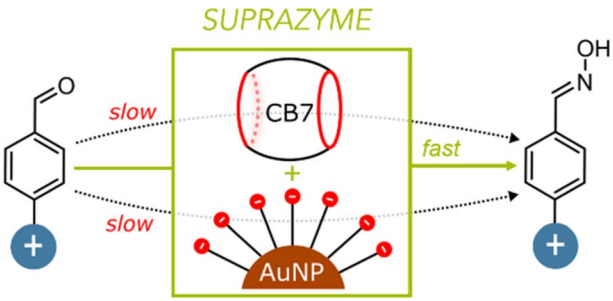


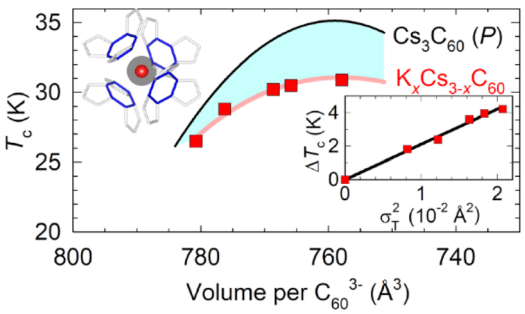

ROYAL SOCIETY OF CHEMISTRY
View Article Online
GOLD OPEN ACCESS
EES Solar
Exceptional research on solar energy and photovoltaics
Part of the EES family
Join in
Publish with us
rsc.li/EESSolar
Registered charity number: 207890

REVIEW



EDGE ARTICLES



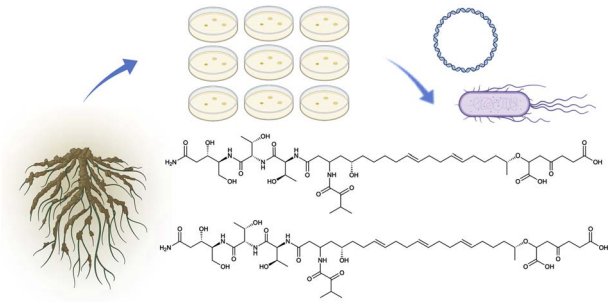


EDGE ARTICLES

EDGE ARTICLES

EDGE ARTICLES

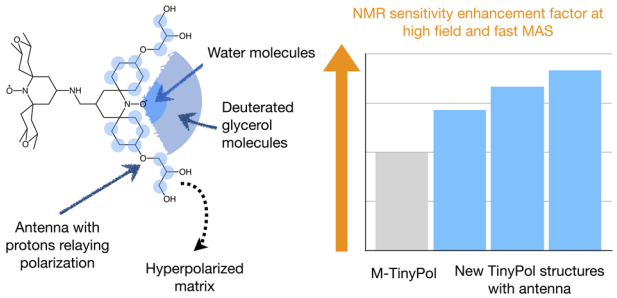
16567



Discovery of megapolipeptins by genome mining of a *Burkholderiales* bacteria collection

Bruno S. Paulo, Michael J. J. Recchia, Sanghoon Lee, Claire H. Fergusson, Sean B. Romanowski, Antonio Hernandez, Nyssa Krull, Dennis Y. Liu, Hannah Cavanagh, Allyson Bos, Christopher A. Gray, Brian T. Murphy, Roger G. Linington* and Alessandra S. Eustaquio*

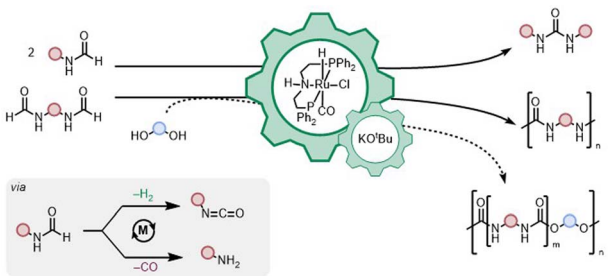
16582



Efficient DNP at high fields and fast MAS with antenna-sensitized dinitroxides

Lorenzo Niccoli, Gilles Casano, Georges Menzildjian, Maxim Yulikov, Thomas Robinson, Salah-Eddine Akrial, Zhuoran Wang, Christian Reiter, Armin Purea, Didier Siri, Amrit Venkatesh, Lyndon Emsley, David Gajan, Moreno Lelli,* Olivier Ouari* and Anne Lesage*

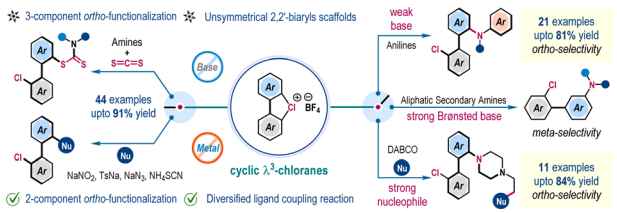
16594



Exploiting decarbonylation and dehydrogenation of formamides for the synthesis of ureas, polyureas, and poly(urea-urethanes)

James Luk, Alister S. Goodfellow, Nachiket Deepak More, Michael Bühl* and Amit Kumar*

16605



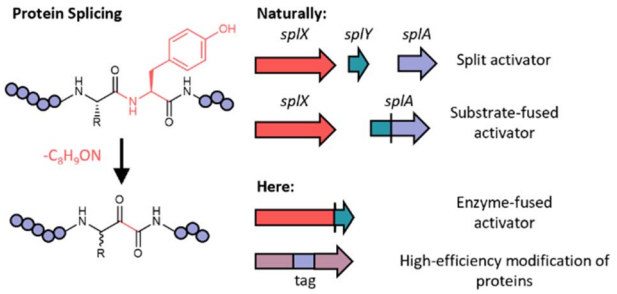
Metal-free site-selective functionalization with cyclic diaryl λ^3-chloranes: suppression of benzyne formation for ligand-coupling reactions

Koushik Patra, Manas Pratim Dey and Mahiuddin Baidya*

EDGE ARTICLES

EDGE ARTICLES

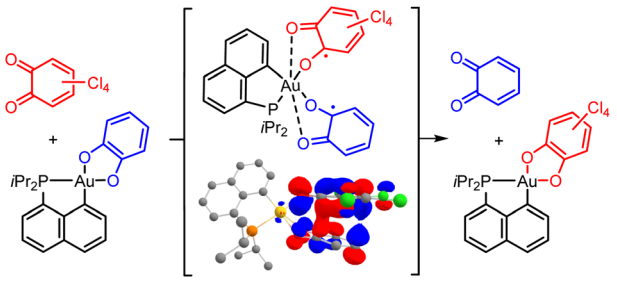
16645



A structurally conserved helix enables leader-independent tyramine splicing of proteins

Daniel Richter, Alicia Courvoisier-Clément, Anna Lisa Vagstad, Sarolt Magyari and Jörn Piel*

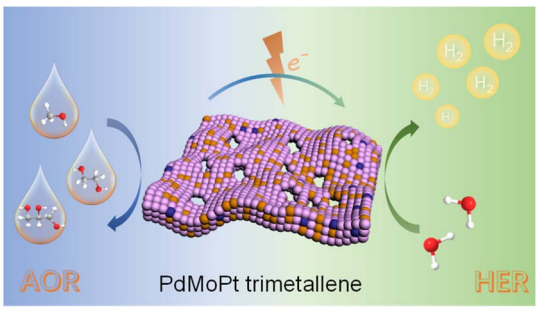
16651



Catechol/*o*-benzoquinone exchange at gold(III)

Félix León, Yago García-Rodeja, Sonia Mallet-Ladeira, Karinne Miqueu,* György Szalóki* and Didier Bourissou*

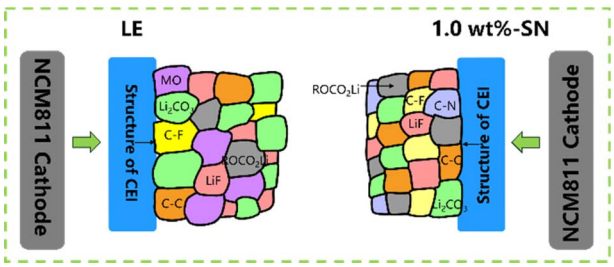
16660



Bifunctional PdMoPt trimetallene boosts alcohol–water electrolysis

Junfeng Liu,* Tong Li, Qiuxia Wang, Haiting Liu, Jingjing Wu, Yanping Sui, Huaming Li, Pengyi Tang* and Yong Wang*

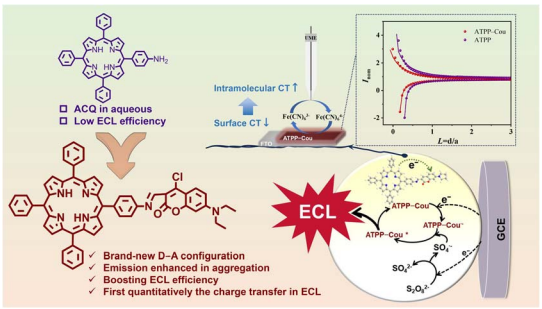
16669

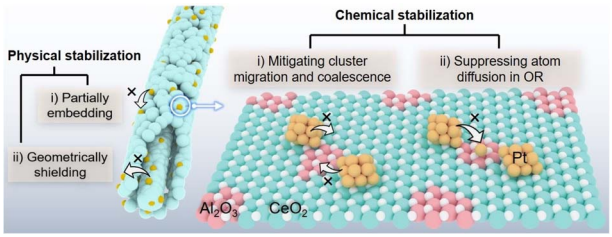


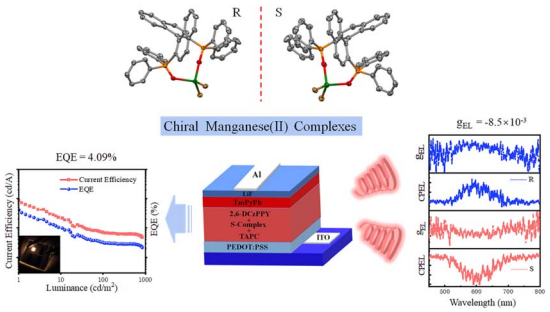
Simultaneous modulation of cathode/anode and electrolyte interfaces *via* a nitrile additive for high-energy-density lithium-metal batteries

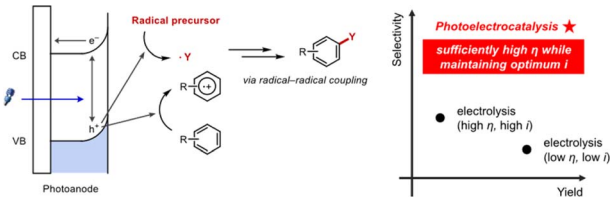
Ziye Wang, Yingshuai Wang, Yuhang Xin, Qingbo Zhou, Xiangyu Ding, Lei Liu, Tinglu Song, Feng Wu, Zhongbao Wei* and Hongcai Gao*

EDGE ARTICLES



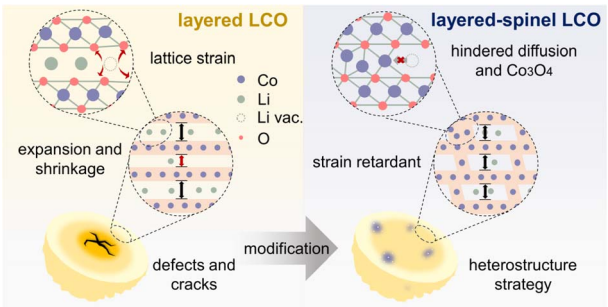


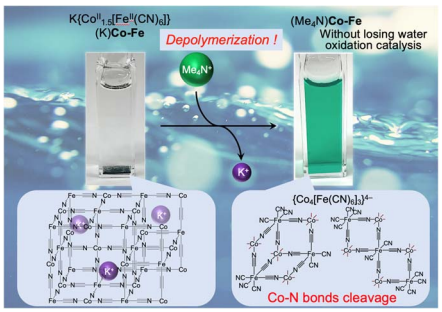


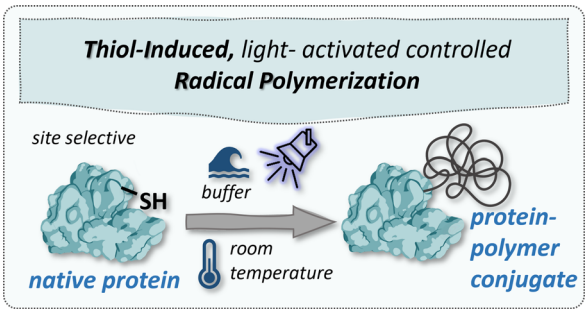


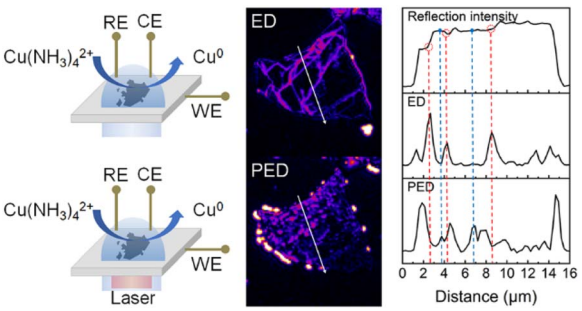
EDGE ARTICLES

EDGE ARTICLES

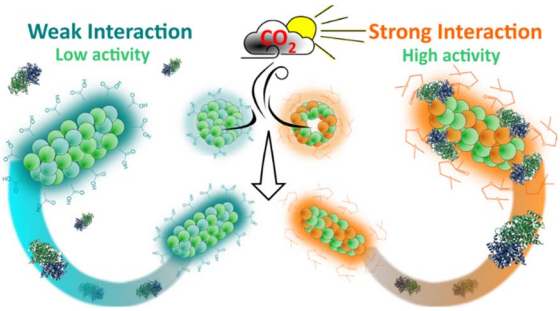


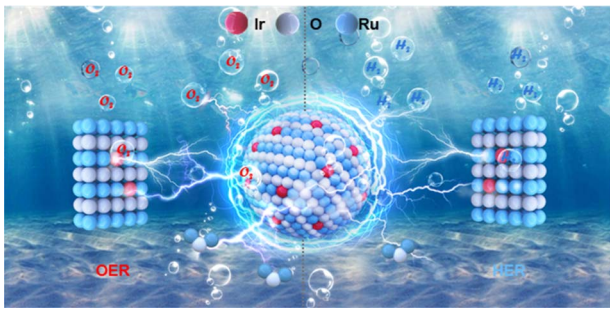






EDGE ARTICLES





CORRECTION