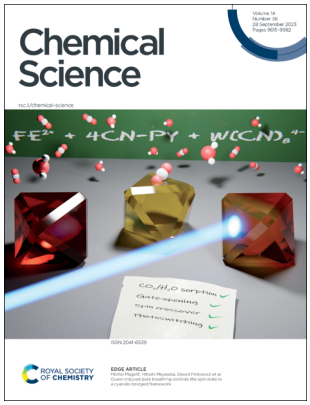
Chemical Science

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

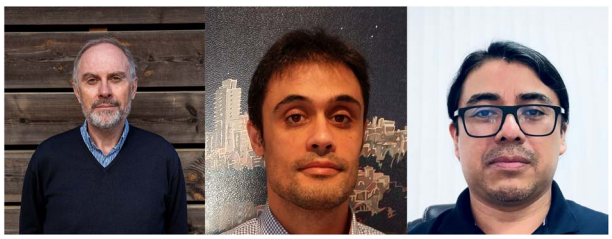
ISSN 2041-6539 CODEN CSHCBM 14(36) 9615–9982 (2023)



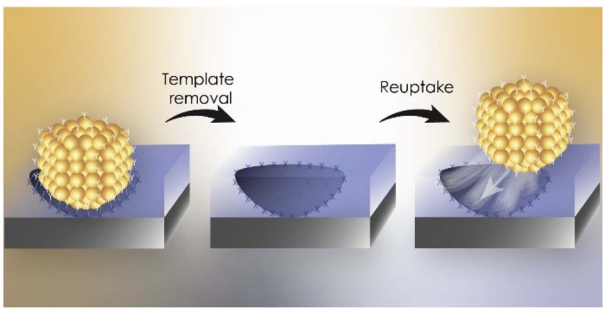
Cover
See Michał Magott, Hitoshi Miyasaka, Dawid Pinkowicz *et al.*, pp. 9651–9663. Image reproduced by permission of Michał Magott from *Chem. Sci.*, 2023, **14**, 9651.

Inside cover
See Daniel Mandler *et al.*, pp. 9630–9650. Image reproduced by permission of Daniel Mandler from *Chem. Sci.*, 2023, **14**, 9630. Artwork created by Nitzan Shauloff.

EDITORIAL



REVIEW



Chemical Science (electronic: ISSN 2041-6539) is published 48 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK.

Chemical Science is a Gold Open Access journal and all articles from 2015 onwards are free to read.
Please email orders@rsc.org to register your interest or contact Royal Society of Chemistry Order Department, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK

Tel +44 (0)1223 432398; E-mail **orders@rsc.org**

ROYAL SOCIETY OF CHEMISTRY

Chemical Science

rsc.li/chemical-science

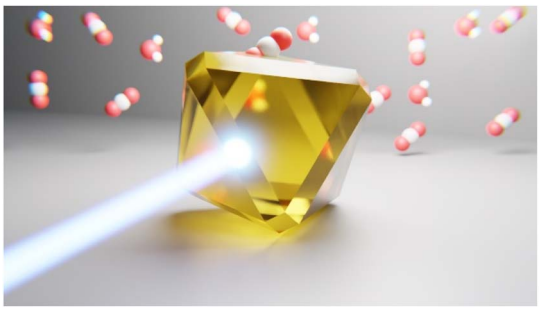
Information for Authors

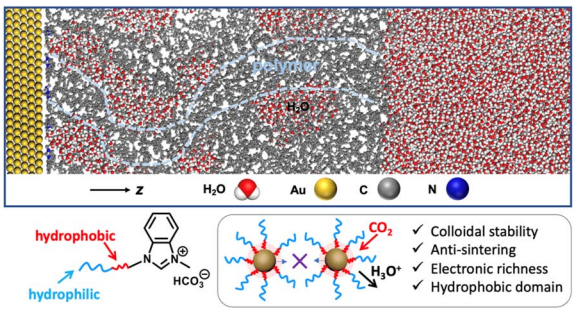
Full details on how to submit material for publication in Chemical Science are given in the Instructions for Authors (available from http://**www.rsc.org/authors**). Submissions should be made via the journal's homepage: **rsc.li/chemical-science**

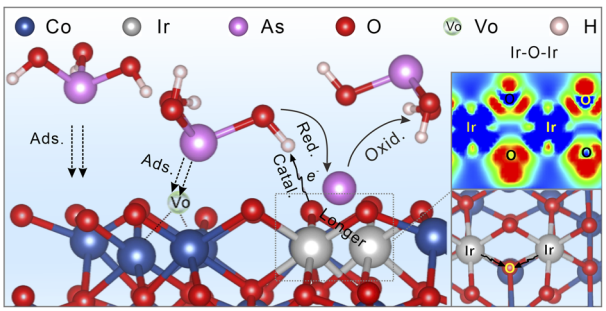
Authors may reproduce/republish portions of their published contribution without seeking permission from the Royal Society of Chemistry, provided that any such republication is accompanied by an acknowledgement in the form: (Original Citation)–Reproduced by permission of the Royal Society of Chemistry.

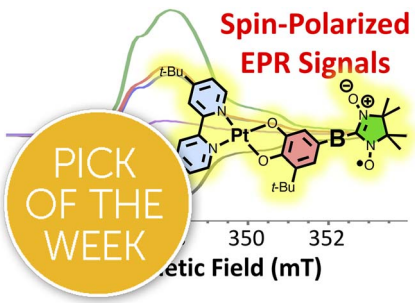
Registered charity number: 207890

EDGE ARTICLES

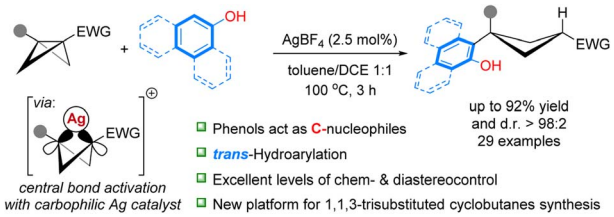






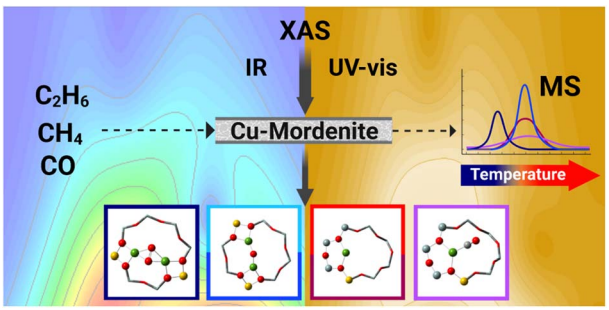


EDGE ARTICLES



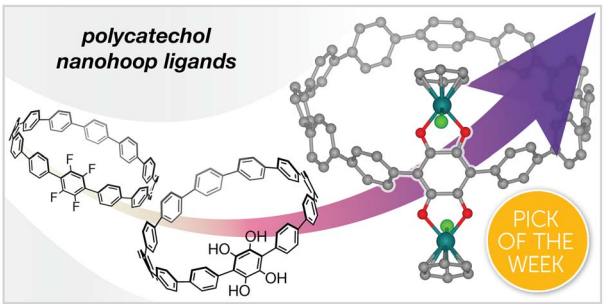
C(sp^2)–H cyclobutylation of hydroxyarenes enabled by silver-π-acid catalysis: diastereocontrolled synthesis of 1,3-difunctionalized cyclobutanes

Lei Tang, Qi-Nan Huang, Feng Wu, Yuanjiu Xiao, Jin-Lan Zhou, Tong-Tong Xu, Wen-Biao Wu,* Shuanglin Qu* and Jian-Jun Feng*



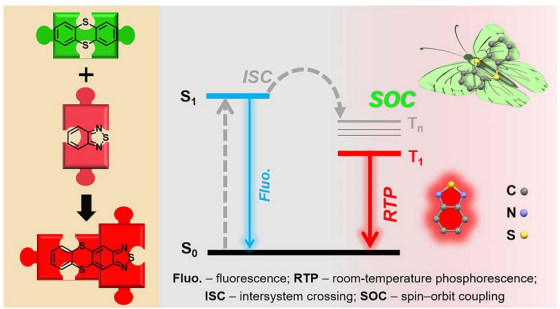
Understanding C–H activation in light alkanes over Cu-MOR zeolites by coupling advanced spectroscopy and temperature-programmed reduction experiments

Karoline Kvande, Beatrice Garetto, Gabriele Deplano, Matteo Signorile, Bjørn Gading Solemsli, Sebastian Prodinger, Unni Olsbye, Pablo Beato, Silvia Bordiga, Stian Svelle* and Elisa Borfecchia*



Synthesis and metalation of polycatechol nanohoops derived from fluorocycloparaphenylenes

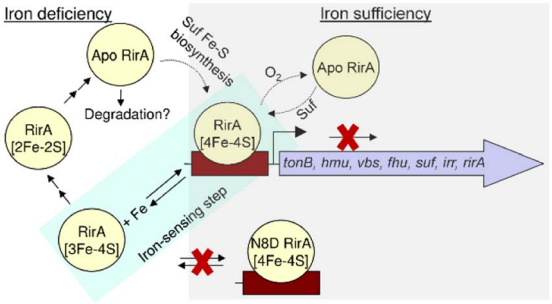
Ashlyn A. Kamin, Tara D. Clayton, Claire E. Otteson, Paige M. Gannon, Sebastian Krajewski, Werner Kaminsky, Ramesh Jasti and Dianne J. Xiao*

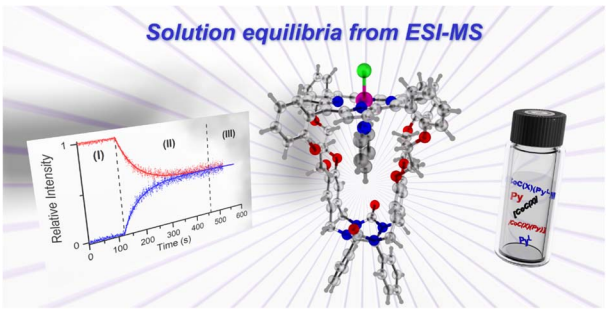


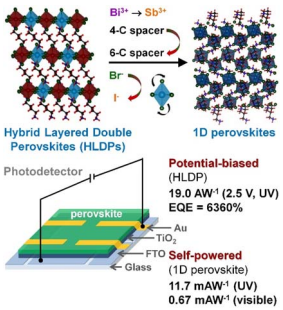
A functional unit combination strategy for enhancing red room-temperature phosphorescence

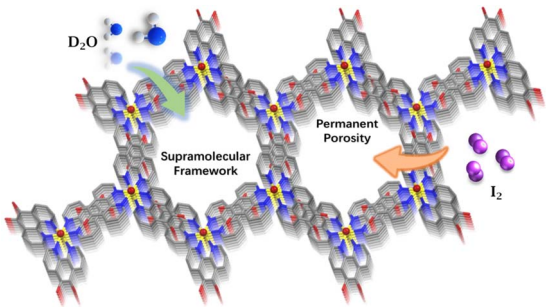
Shuaiqiang Zhao, Zhiqiang Yang, Xiangyu Zhang, Haichao Liu,* Yingbo Lv, Shiyin Wang, Zhongzhao Yang, Shi-Tong Zhang and Bing Yang*

EDGE ARTICLES



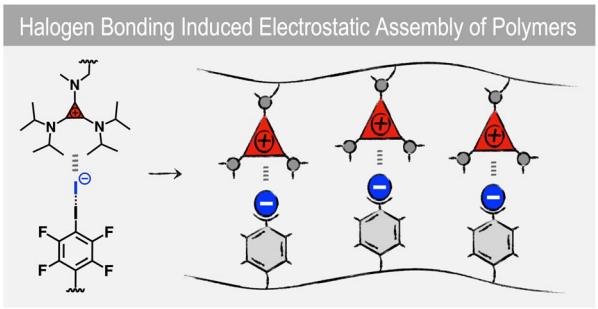


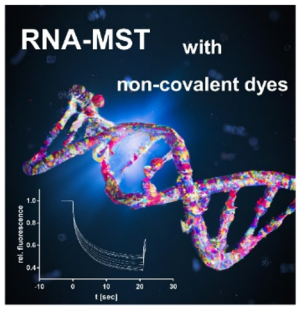


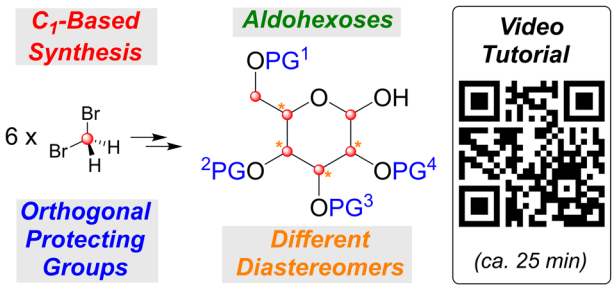


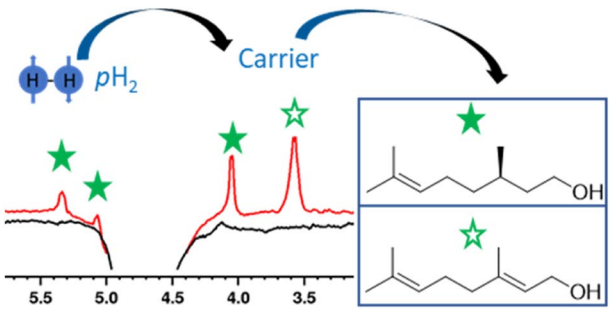
EDGE ARTICLES

EDGE ARTICLES



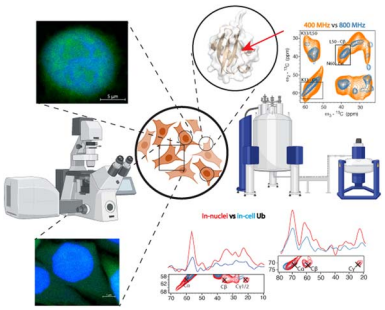


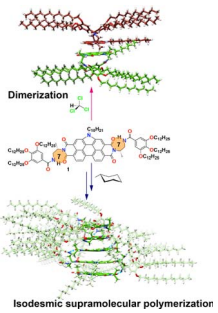


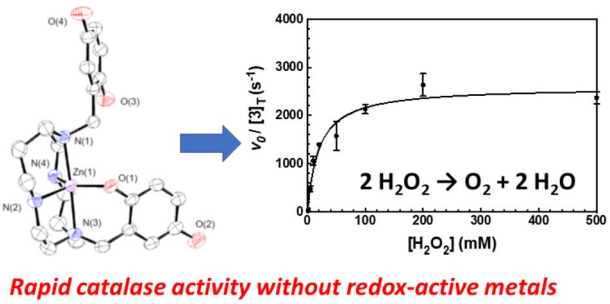


EDGE ARTICLES

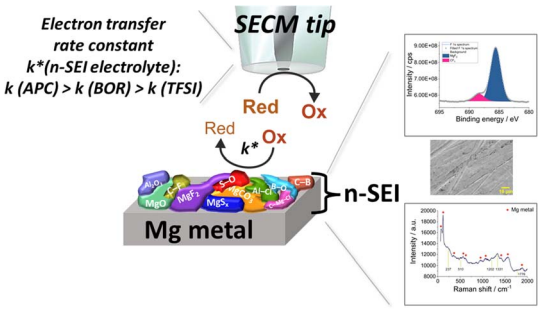
EDGE ARTICLES







Rapid catalase activity without redox-active metals



EDGE ARTICLES

EDGE ARTICLES

CORRECTIONS