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IN THIS ISSUE

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Cover

See Marcin Lindner, Artur Kasprzak *et al.*, pp. 10488–10491. Image reproduced by permission of Ettore Crovini from *Chem. Commun.*, 2024, 60, 10488.



Inside cover

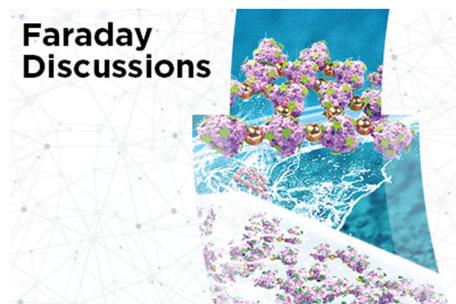
See Arnab Dutta *et al.*, pp. 10492–10495. Image reproduced by permission of Arnab Dutta and Piyali Majumder from *Chem. Commun.*, 2024, 60, 10492.

CONFERENCE REPORT

10431

Highlights from the Biocatalysis Faraday Discussion, May 2024, London, United Kingdom

Agata Raczyńska*

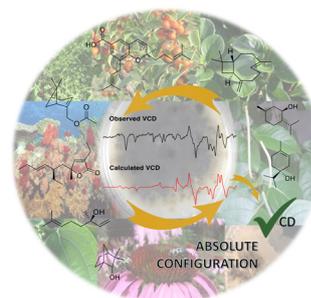


HIGHLIGHT

10439

Stereochemistry of natural products from vibrational circular dichroism

Andrea N. L. Batista, Alessandra L. Valverde, Laurence A. Nafie and João M. Batista Jr*



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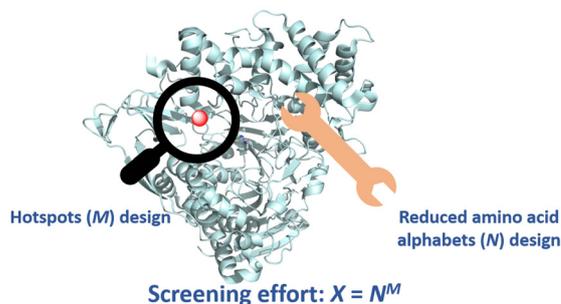
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FEATURE ARTICLES

10451

Rational enzyme design by reducing the number of hotspots and library size

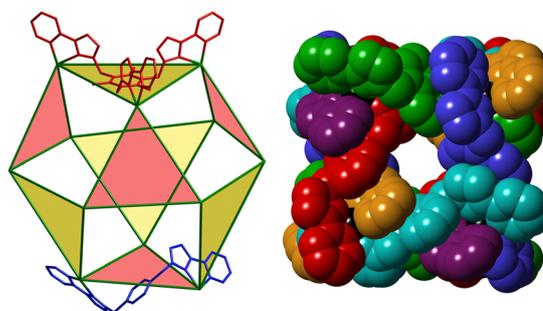
Zongmin Qin, Bo Yuan, Ge Qu* and Zhoutong Sun*



10464

New insights into coordination-cage based catalysis

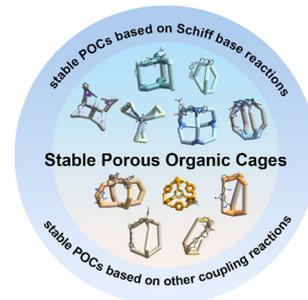
Michael D. Ward



10476

Construction of stable porous organic cages: from the perspective of chemical bonds

Miao Yang, Kongzhao Su* and Daqiang Yuan*

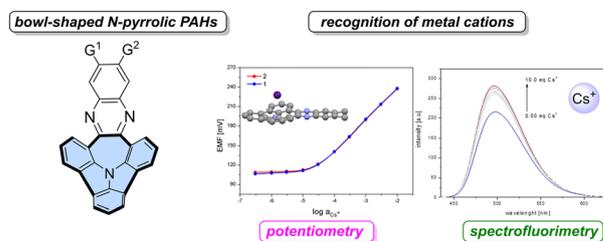


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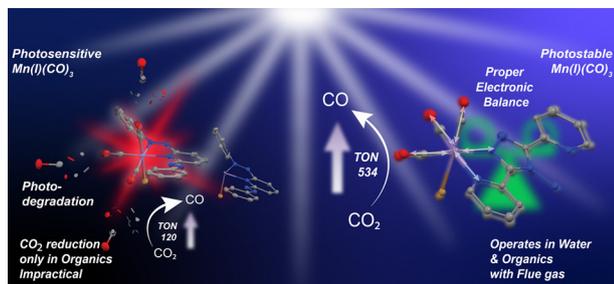
10488

Metal cations recognition by bowl-shaped *N*-pyrrolic polycyclic aromatic hydrocarbons

Daria Szeląg, Jakub S. Cyniak, Joachim Ażgin, Jakub Wagner, Marcin Lindner,* Wojciech Wróblewski and Artur Kasprzak*



10492



A ligand-modulated photostable Mn(I)–carbonyl complex for preferential conversion of CO_2 to CO in water

Chandan Das, Suchismita Ghosh, Rathindranath Biswas, Goutam K. Lahiri and Arnab Dutta*

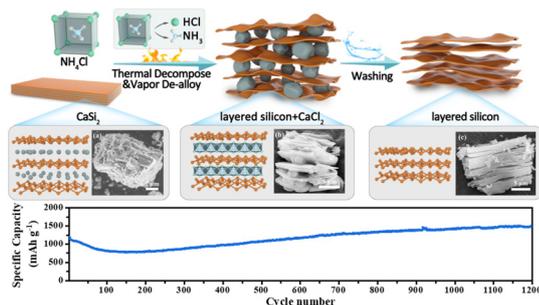
10496



Ruthenium-infused nickel sulphide propelling hydrogen generation via synergistic water dissociation and Volmer step promotion

Nasrin Banu G., Rama Prakash M., Anantharaj Sengeni and Bernardshaw Neppolian*

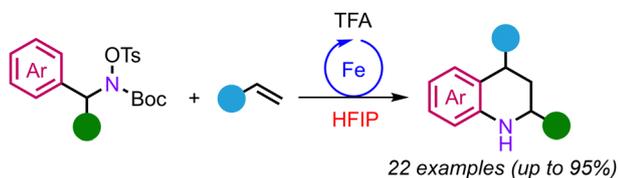
10500



Low-temperature de-alloying and unique self-filling interface optimization mechanism of layered silicon for enhanced lithium storage

Wanling Ji, Minghuang Li, Yutong Nong, Jie Luo, Xinglong Liang, Xiaowei Wang,* Lei Ming, Xing Ou, Jiafeng Zhang,* Bao Zhang, Xuwang Fu, Lei Dong, Jianmin Feng* and Ji Liang*

10504



A poverov-type reaction to access tetrahydroquinolines from N-benzylhydroxylamines and alkenes in HFIP

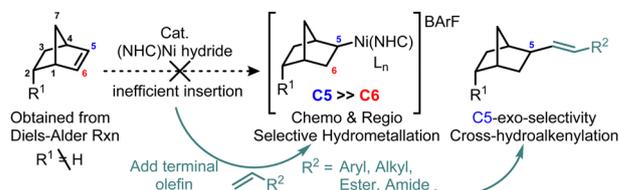
Valentyn Pozhydaiev, Daniella Al-Othman, Joseph Moran* and David Leboeuf*



10508

(NHC)Ni(II)-catalyzed regioselective hydroalkenylation of norbornene derivatives: fine-tuning of NHC ligands and donor alkenes

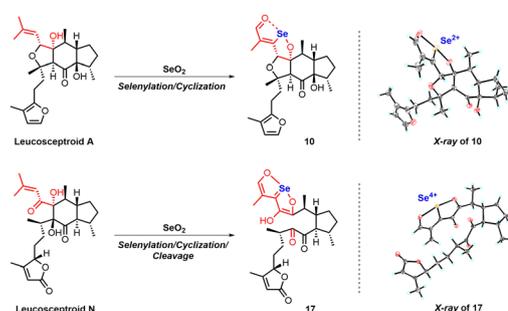
Meng Yu, Xiao Gu and Chun-Yu Ho*



10512

Selenium dioxide promoted selenylation/cyclization of leucosceptrane sesterterpenoids

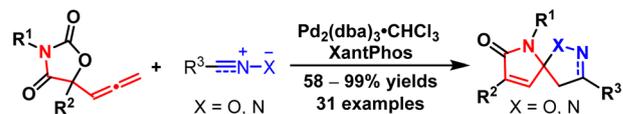
Hao Geng, Ran Fu, Ting-Ting Zhou, Man Li, Yan-Chun Liu, Xiao-Nian Li, Yan Liu, Yu Zheng* and Sheng-Hong Li*



10516

Pd-catalyzed sequential intramolecular annulation/intermolecular [3+2] cycloaddition of 5-allenyloxazolidine-2,4-diones with dipoles: synthesis of spiroheterocycles

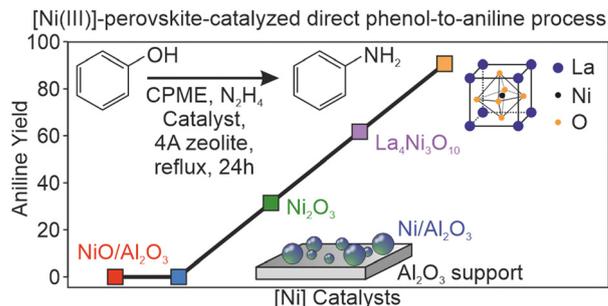
Yujie Dong, Jun Liu, Rongjin Ning, Fazhou Yang, Cheng Zhang* and Hongchao Guo*



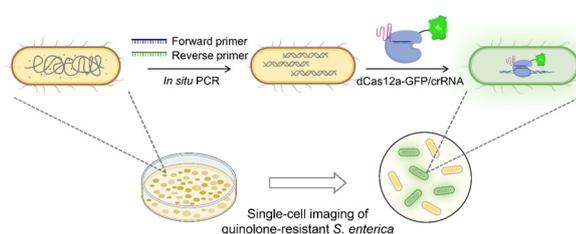
10520

Nickel-based perovskite-catalysed direct phenol-to-aniline liquid-phase transformations

Anna Adél Ádám, Sándor Balázs Nagy, Ákos Kukovecz, Zoltán Kónya, Pál Sipos and Gábor Varga*



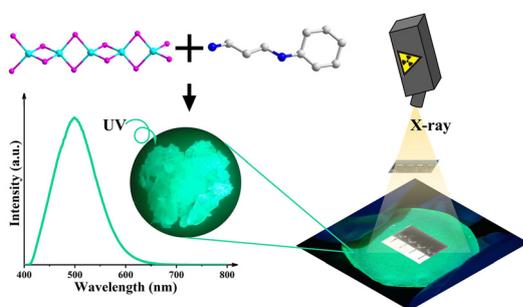
10524



High-contrast imaging of cellular non-repetitive drug-resistant genes *via in situ* dead Cas12a-labeled PCR

Ruijie Deng, Xinlei Zhang, Jijuan Cao, Xinmiao Liu, Yong Zhang, Feng Wang* and Xuhan Xia*

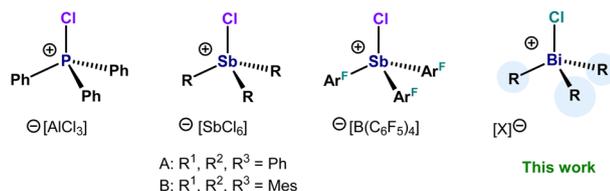
10528



One-dimensional hybrid copper halides with high-efficiency photoluminescence as scintillator

Zhongliang Gong, Jie Zhang, Ying-Yue Liu, Lu-Xin Zhang, Qing Zhang, Lingyun Xiao, Bingqiang Cao,* Bing Hu* and Xiao-Wu Lei*

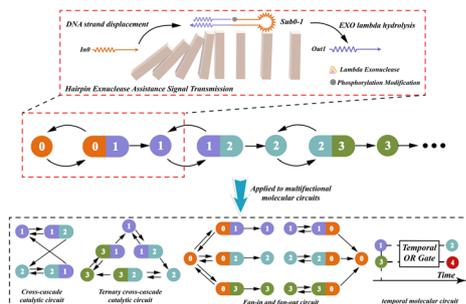
10532



Synthesis and characterization of chlorotriarylbismuthonium salts

Jennifer Kuziola, Nils Nöthling, Markus Leutzsch and Josep Cornella*

10536



DNA domino circuits based on a hairpin exonuclease assistance signal transmission architecture for temporal logic operations

Xun Zhang, Yao Yao, Xin Liu, Xiaokang Zhang, Shuang Cui, Bin Wang and Qiang Zhang*

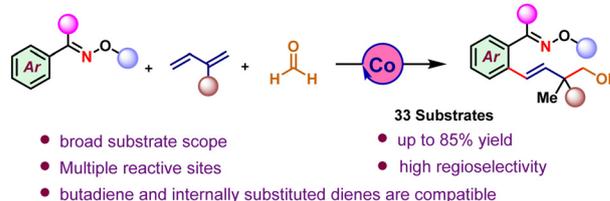


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10540

Cobalt-catalyzed three-component assembly of aromatic oximes with substituted dienes and formaldehyde

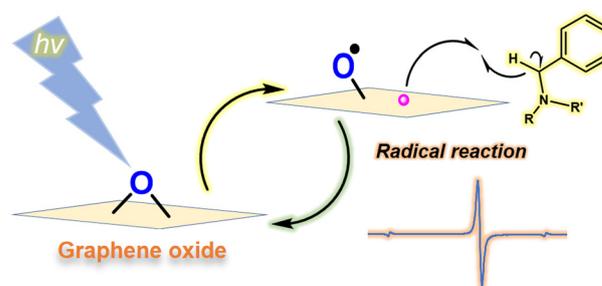
Priyambada Prusty and Masilamani Jeganmohan*



10544

Investigating the radical properties of oxidized carbon materials under photo-irradiation: behavior of carbon radicals and their application in catalytic reactions

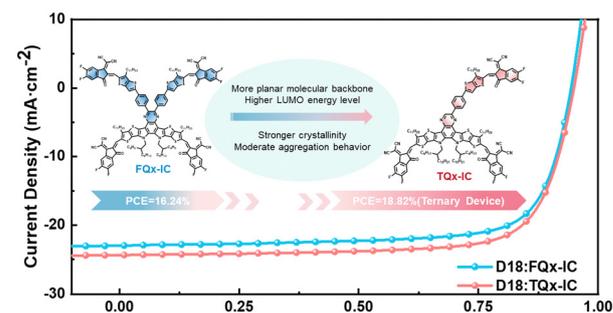
Md Razu Ahmed, Israel Ortiz Anaya and Yuta Nishina*



10548

Multi-arm quinoxaline-based acceptors formed by π -conjugation extension for efficient organic solar cells

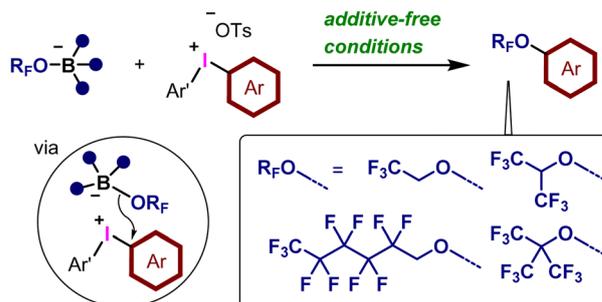
Xinya Ran, Dingding Qiu, Yanan Shi, Hao Zhang, Jianqi Zhang, Zhixiang Wei* and Kun Lu*



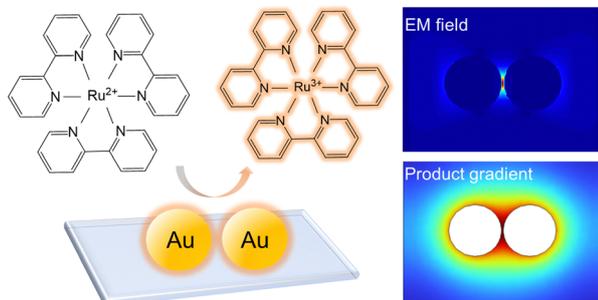
10552

Borate-mediated aryl polyfluoroalkoxylation under transition-metal-free conditions

Kotaro Kikushima,* Tomoka Tsuda, Naoki Miyamoto, Yasuyuki Kita* and Toshifumi Dohi*



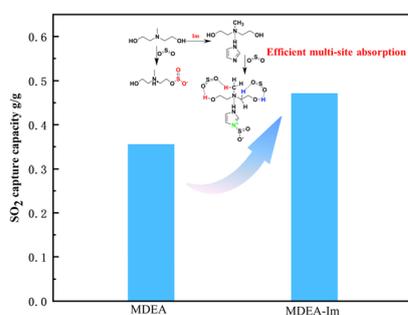
10556



Nanostructure impact on electrocatalysis in gold nanodimers *via* electrochemiluminescence microscopy

Qian-Qian Tao, Cong-Hui Xu, Wei Zhao,*
Hong-Yuan Chen and Jing-Juan Xu*

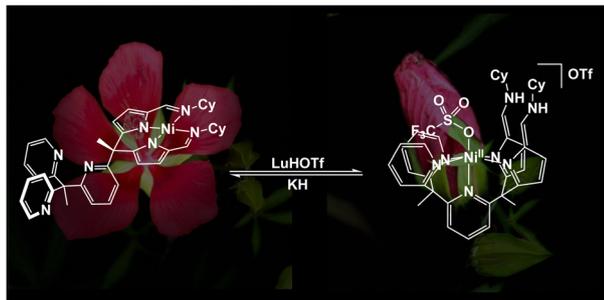
10560



Tuning the structure of *N*-methyldiethanolamine-based deep eutectic solvents for efficient and reversible SO₂ capture

Xueqi Li, Lingqiang Meng, Fulu Yang, Zhuhong Yang,*
Jun Li, Yifeng Chen* and Xiaoyan Ji

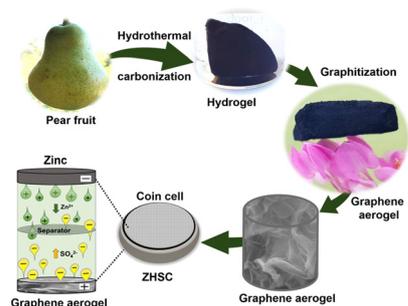
10564



Synthesis and characterization of tetrapodal nickel complexes with adaptable ligand binding geometries

Hsien-Liang Cho, Kelly L. Gullett and Alison R. Fout*

10568



Waste biomass-based 3D graphene aerogels for high performance zinc-ion hybrid supercapacitors

Gouri Sankar Das, Lokesh Kumar Jangir, K Sandeep Raju,
Yogesh Chandra Sharma* and Kumud Malika Tripathi*

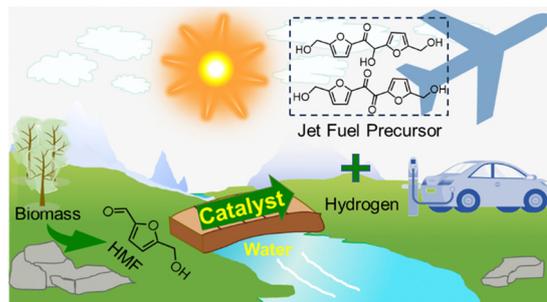


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10572

Photocatalytic production of a C₁₂ liquid biofuel precursor and H₂ by Ni(OH)₂-ZnIn₂S₄ in anaerobic water

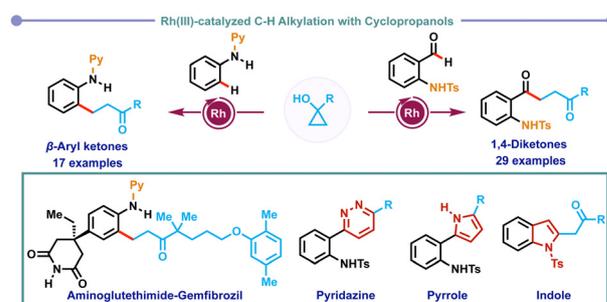
Wanqiong Kang, Xiaolong Li, Xiongxiang Zeng, Han Wu, You Ge, Lan Yuan,* Yi Liu* and Chuang Han*



10576

Rh(III)-catalyzed aldehydic and aryl C–H alkylation with cyclopropanols via C–H/C–C bond activation

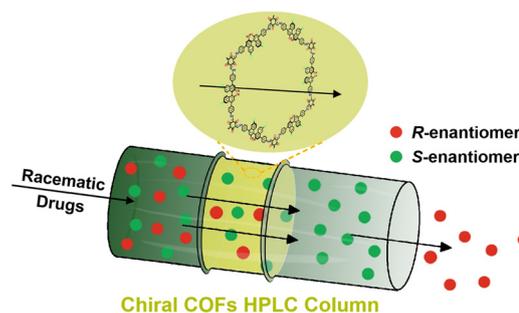
Om Prakash Dash, Divya Garg and Chandra M. R. Volla*



10580

Binaphthyl-based chiral covalent organic frameworks for chiral drug separation

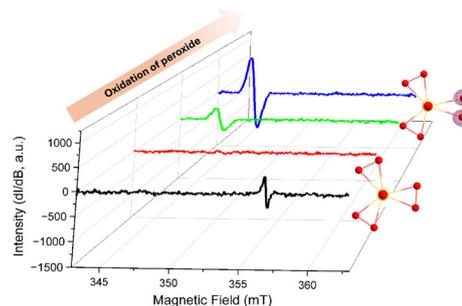
Hui-Chao Ma,* Hai-Ping Jiang, Zi-Hui Yao, Jun-Feng Tan, Yang-Yang Xing, Gong-Jun Chen* and Yu-Bin Dong*



10584

Impacts of trace level chromium on formation of superoxide within uranyl triperoxide complexes

Sarah K. Scherrer, Harindu Rajapaksha, Dmytro V. Kravchuk, Sara E. Mason and Tori Z. Forbes*



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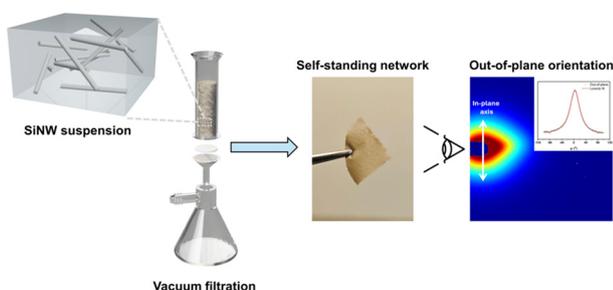
10588



Construction of heterocycle-triazolotriazine framework energetic compounds: towards novel high-performance explosives

Pengju Yang, Xiaoxiao Zheng, Guojie Zhang, Caijing Lei, Guangbin Cheng* and Hongwei Yang*

10592



Silicon nanowire aqueous dispersions for processing into macroscopic network materials

David Tilve-Martinez,* Nabil Abomailek, Felipe Lozano-Steinmetz, Afshin Pendashteh and Juan J. Vilatela*

CORRECTION

10596

Correction: Recent applications of organic cages in sensing and separation processes in solution

Sonia La Cognata and Valeria Amendola*

