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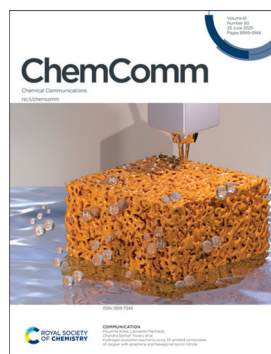
Chemical Communications

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Cover

See Moumita Kotal, Leonardo Machado, Chandra Sekhar Tiwary *et al.*, pp. 9039–9042. Image reproduced by permission of Chandra Sekhar Tiwary from *Chem. Commun.*, 2025, 61, 9039.



Inside cover

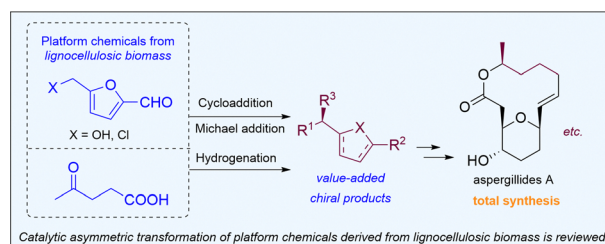
See Annamalai Pratheepkumar *et al.*, pp. 9043–9046. Image reproduced by permission of Annamalai Pratheepkumar from *Chem. Commun.*, 2025, 61, 9043.

HIGHLIGHTS

8960

Catalytic asymmetric transformation of platform chemicals derived from lignocellulosic biomass

Qingqin Huang, Yu-Ping Tang, Zhao-Fei Zhang, Zhen Wang* and Lei Dai*

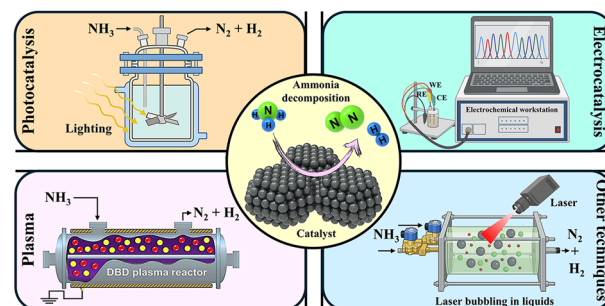


Catalytic asymmetric transformation of platform chemicals derived from lignocellulosic biomass is reviewed

8969

Recent progress in the decomposition of ammonia as a potential hydrogen-carrier using green technologies

Seyed Majid Ghoreishian, Mohammad Norouzi and Jochen Lauterbach*



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Fundamental questions
Elemental answers

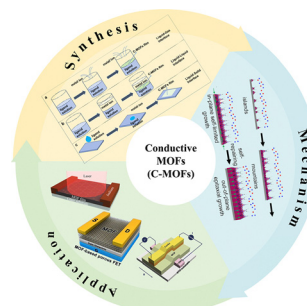


FEATURE ARTICLES

8984

Interface-assisted preparation of conductive MOF membrane/films

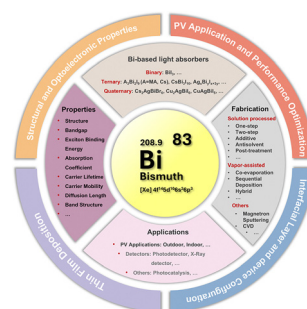
Yuxin Zhang, Jing Zhang, Fang Wang, Gang Xu* and Rui Zheng*



9005

Fabrication strategies for lead-free bismuth-based perovskite solar cells: a review

Jian Kang, Liang Tao, Shuting Ma, Qi Zhang, Shan Chen* and Huajie Yin*

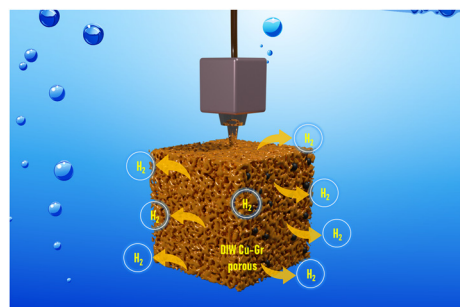


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Hydrogen evolution reactions using 3D printed composites of copper with graphene and hexagonal boron nitride

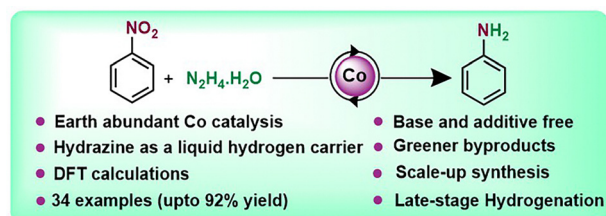
Rakesh Das, Raphael Benjamim, Moumita Kotal,* Leonardo Machado,* Douglas S. Galvao and Chandra Sekhar Tiwary*

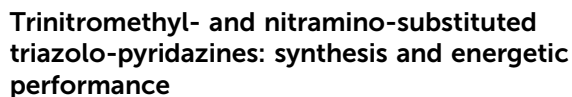


9043

Engaging hydrazine hydrate as a hydrogen source for cobalt(II)-catalysed transfer hydrogenation of nitroaromatics

Ravichandran Manikandan, Ramasamy Shanmugam and Annamalai Pratheepkumar*





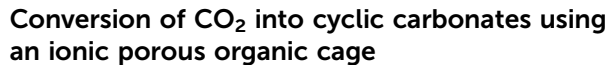
Sagar Nehe, Abhishek Kumar Yadav, Vikas D. Ghule and
Srinivas Dharavath*

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Till J. B. Zähringer, Corinna Heusel, Matthias Schmitz,
Frank Glorius and Christoph Kerzig*

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Qiangqian Mao, Jinjin Zhang and Ming Liu*

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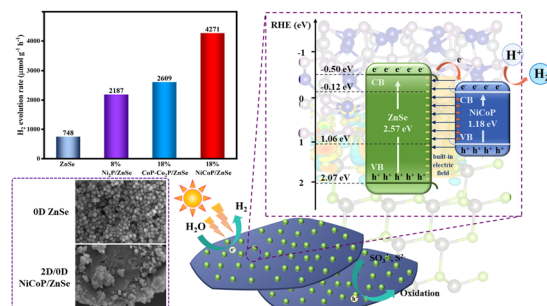
Rokas Gerulskis, Egor Baiarashov, Maryam Karimi,
Wassim El Housseini and Shelley D. Minter*

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Engineering NiCoP nanosheet/ZnSe nanoparticle heterostructures for enhanced photocatalytic hydrogen production

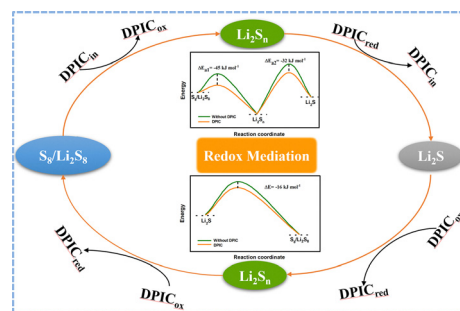
Qingru Zeng, Yachao Tan, Xiangbiao Yin, Guang Gao, Chao He, Yuezhou Wei and Deqian Zeng*



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2,4-Difluorophenyl isothiocyanate as a redox mediator in the electrolyte for kinetically favorable Li–S batteries

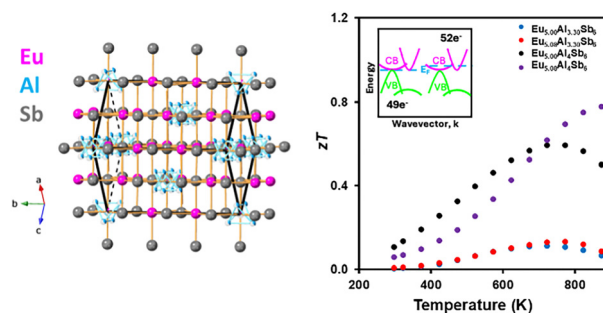
Hai Lu,* Yanyan Zhao, Jinhaochong Wang, Meng Liu, Shiqiang Yang, Yihang Su and Yan Yuan*



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The power of aluminum: optimizing thermoelectric properties of the intermetallic, $\text{Eu}_{5+x}\text{Al}_{3+y}\text{Sb}_6$

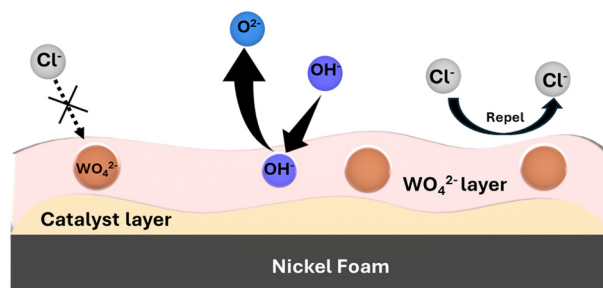
Luis Garay, Leah Borgsmiller, G. Jeffrey Snyder and Susan M. Kauzlarich*



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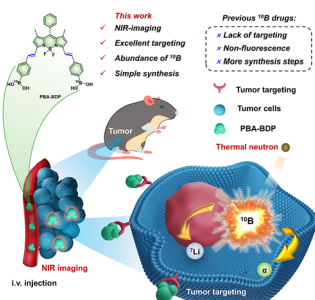
Anionic insertion-prompted corrosion resistance in a metal–organic framework anode for seawater oxidation

Ashish Gaur, Jatin Sharma, Hae In Lee, Dong-Ha Lim* and HyukSu Han*



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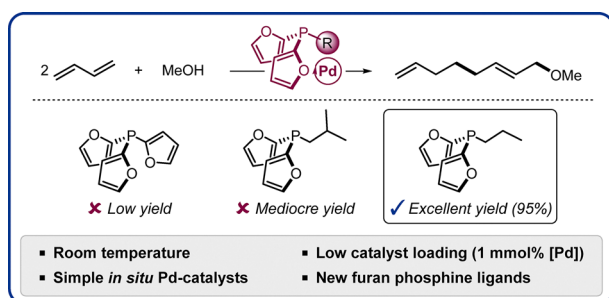
9079



Near-infrared ^{10}B -BODIPY for precise guidance of tracer imaging and treatment in boron neutron capture therapy

Wenyong Huang, Yong Pan, Tianyuan Zhong, Shasha He,* Yanxin Qi* and Yubin Huang*

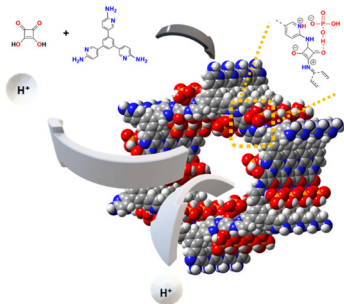
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Development of highly efficient and selective palladium catalysts for telomerization of 1,3-butadiene with alcohols

Edson Leonardo Scarpa de Souza, Sebastian Ahrens, Anke Spannenberg, Helfried Neumann, Kathrin Junge, Carlos Roque Duarte Correia, Ralf Jackstell* and Matthias Beller*

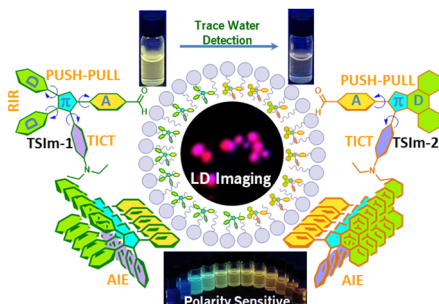
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Phosphoric acid-merged squaraine conjugated mesoporous polymer with high proton conductivity

Sandhya Sharma, Keiichiro Maegawa, Hassan Alipour, Yaroslav Korol, Marek Potrzebowski and Atsushi Nagai*

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Tetrasubstituted imidazole-based multifunctional fluorophores: trace water detection and lipid droplet (LD) imaging studies

Mohammad Masood Zafar, Rashmi Yadav, Alok Singh, Nidhi Tyagi,* Animesh Samanta* and Rakesh K. Mishra*

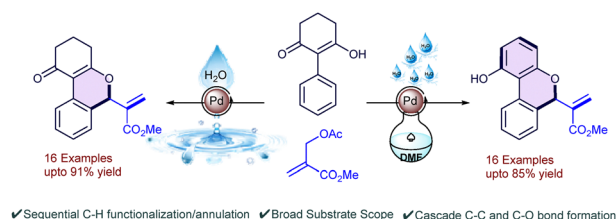


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Cascade C–H functionalization/annulation of 2-aryl-1,3-dicarbonyls with Morita–Baylis–Hillman adducts: access to α -iso-/benzochromenyl acrylates

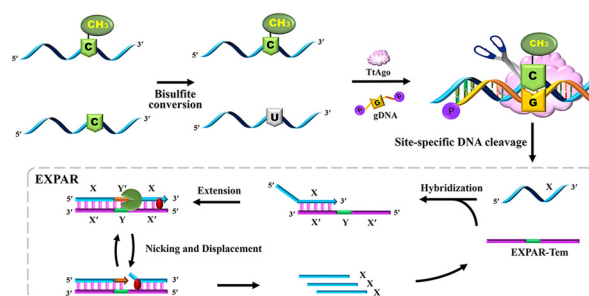
Sajal Roy, Sharajit Saha, Hemanga Bhattacharyya and Tharmalingam Punniyamurthy*



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A *Thermus thermophilus* Argonaute (TtAgo) cleavage-aided isothermal amplification strategy (TAC-IAS) for precise detection of locus-specific DNA methylation

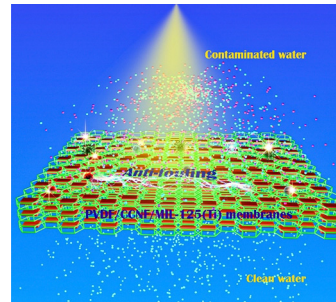
Fangfang Sun, Bingjie Han, Yi Zhao, Xing Chen, Hui Tian,* Chenghui Liu and Yuanyuan Sun*



9103

Multifunctional antifouling sustainable membranes integrating MIL-125(Ti) and carboxylated cellulose nanofibers for self-cleaning and dye degradation

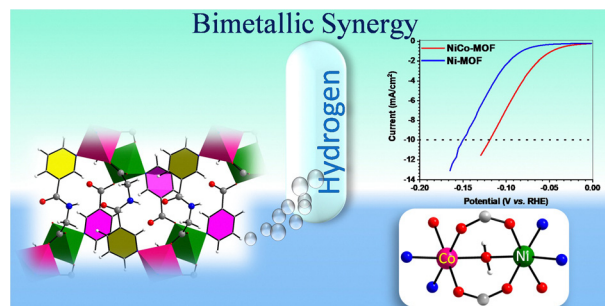
Shuping Wu,* Lijuan Cui, Weijian Shi, Xiaokun Shi and Chao Xu



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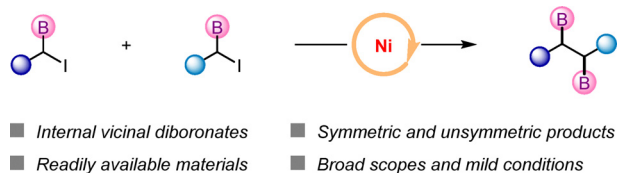
Unlocking enhanced hydrogen evolution with a bimetal–organic framework: a synergistic approach

Chhatan Das, Pappu Naskar, Anjan Banerjee,* Sourav Laha,* Moumita Mukherjee, Ayan Datta* and Partha Mahata*



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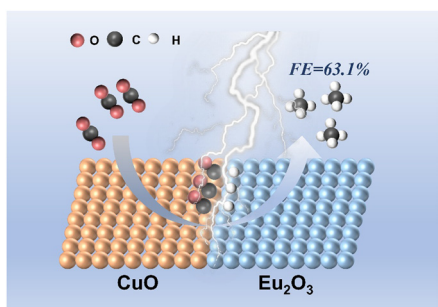
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Nickel-catalyzed reductive coupling of α -haloboronates to access internal vicinal bis(boronate) esters

Huiyuan Wang, Shanya Lu, Dong Wang and Tao XU*

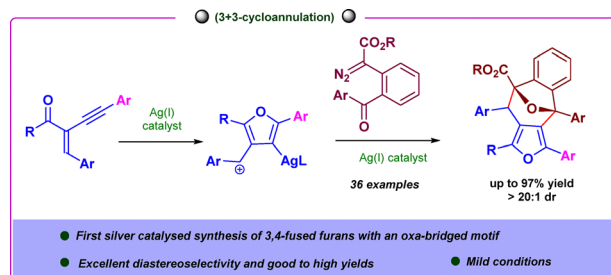
9115



Constructing heterogeneous asymmetric sites for highly-selective methane production from CO_2 electroreduction

Yan Huang, Wen-Chuan Lai* and Zhi-Yuan Gu

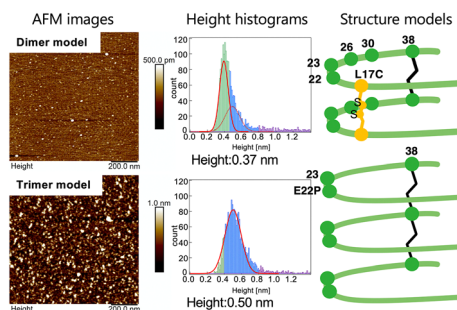
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Highly regio- and diastereoselective (3+3)-cycloannulation of carbonyl ylides and 2-(1-alkynyl)-2-alken-1-ones enabled by silver catalysis

Jyotish Barman and Subhas Chandra Pan*

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Sizes of amyloid- β oligomers predicted using atomic force microscopy and two-point crosslinked dimers as standards

Chikara Harada, Atsuya Matsui, Yumi Irie, Ayumi Uchino, Ayaka Chikugo, Kotaro Fujii, Katsuma Hosoi, Akio Nakanishi, Yusuke Kageyama, Nobuyasu Naruse,* Chihiro Tsukano, Kazuhiro Irie* and Yutaka Mera

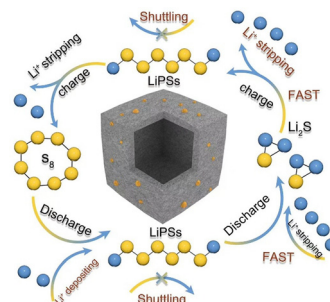


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Ultrafine cobalt nanoparticle-decorated carbon submicron-cubes enhance polysulfide trapping and redox kinetics in lithium–sulfur batteries

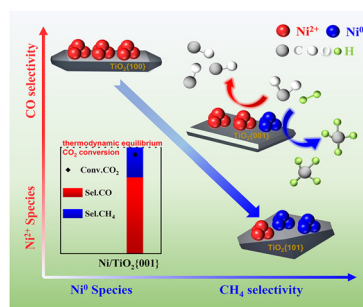
Zheng Huang, Qijun Han, Jishu Han, Lei Wang and Qingliang Lv*



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Morphology-dependent Ni/TiO₂ catalysts for CO₂ hydrogenation

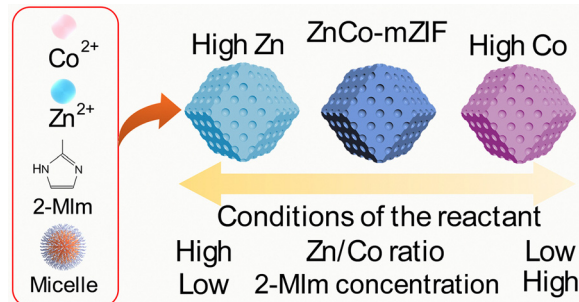
Bo Wang, Bo Peng, Aiping Jia, Yunshang Zhang, Shangcong Sun, Jieqiong Ding, Weixin Huang and Kun Qian*



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Soft-templated synthesis of hierarchical micro- and mesoporous Zn/Co bimetallic zeolitic imidazolate frameworks

Keisuke Shirasaki, Yingji Zhao,* Yusuke Asakura and Yusuke Yamauchi*



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Enhanced redox cycling of Fe₃O₄ by Cr-doping over oxygen electrode for rechargeable zinc–air batteries

Jiao Peng, Shan Ji,* Wenlong Yang,* Hui Wang, Xuyun Wang, Vladimir Linkov, Rongfang Wang and Xianguo Ma*

