

Green Chemistry

Cutting-edge research for a greener sustainable future

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See Martyn Poliakoff and Ben L. Feringa, pp. 3001–3005.

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See Xiaonan Wang,
Shanying Hu *et al.*,
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Obituary: Roger Arthur Sheldon (1942–2025)

Martyn Poliakoff and Ben L. Feringa

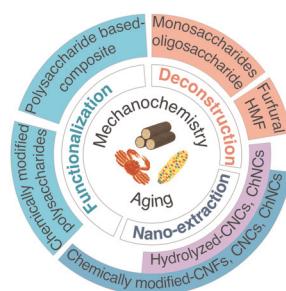


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Mechanochemical transformations of polysaccharides to value added products: a review with Green Chemistry evaluation

Galen Yang, Yasmeen Jaber, Edmond Lam and Audrey Moores*



- 5 to 50-fold more efficient reactions
- Less reagent and auxiliaries
- New reactivity & selectivity
- Safer synthesis

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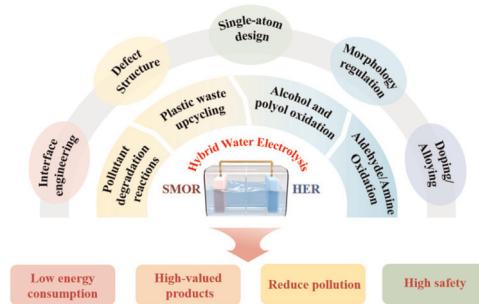
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CRITICAL REVIEWS

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Hybrid water electrolysis toward energy-efficient hydrogen production coupled with value-added chemical synthesis

Yilin Wu and Pengzuo Chen*

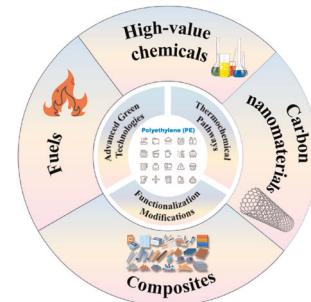


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Research progress of high value utilization of waste polyethylene plastics

Mingjun Xiao* and Xihang Dai

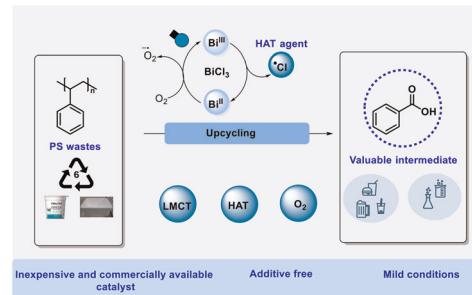


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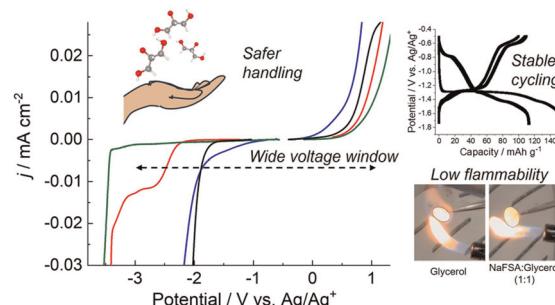
S. Srividya, Apurba Kumar Pal and K. Geetharani*



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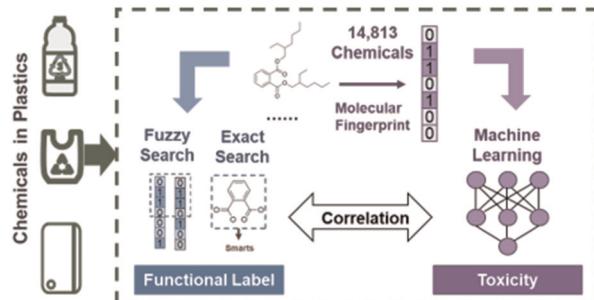
Glycerol electrolytes for safer and more sustainable sodium ion batteries

Zachary T. Gossage,* Teppei Furuichi, Tomooki Hosaka, Kei Shibuya and Shinichi Komaba*



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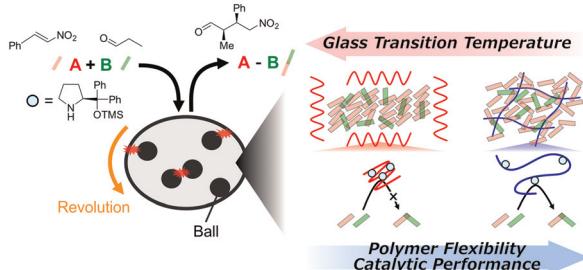


Toward comprehensive scientific information on plastic-related chemicals powered by artificial intelligence

Kai Zhao, Xiting Peng, Ran Tao, Yuchen Su, Shiyue Huang, Hang Fu, Xiaonan Wang* and Shanying Hu*

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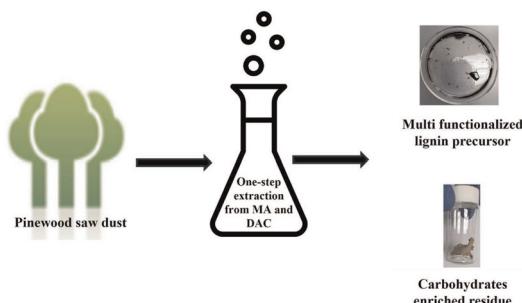
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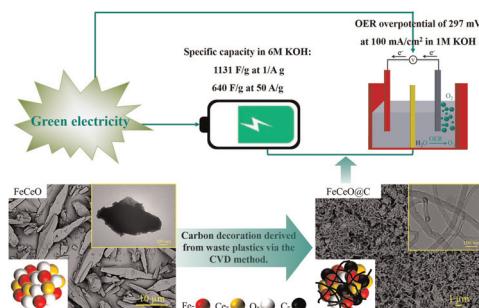
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Constructing bifunctional electrodes of FeCeO with tunable carbon decoration from waste plastics for efficient energy storage and the oxygen evolution reaction

Shizhen Zhang, Xu Hou,* Jing Huang, Li Yin and Enxian Yuan*

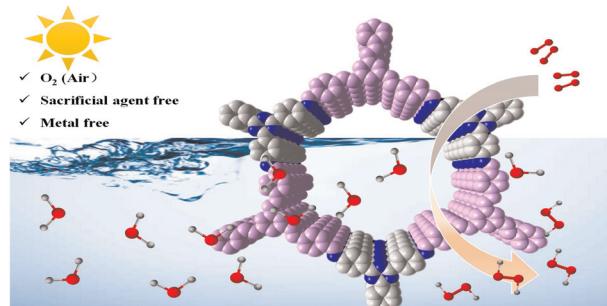


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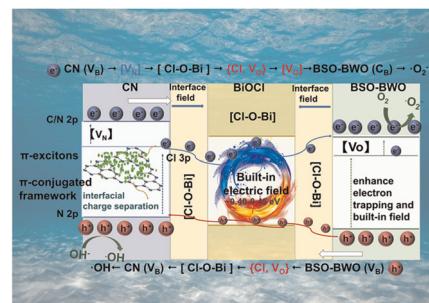
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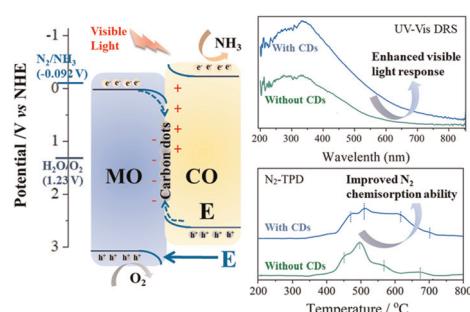
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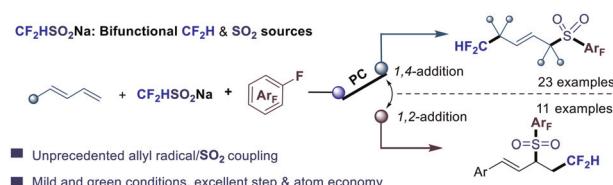
Huawei Zhang,* Liang Bao, Ying Pan, Lulu Xu* and Wei Wang



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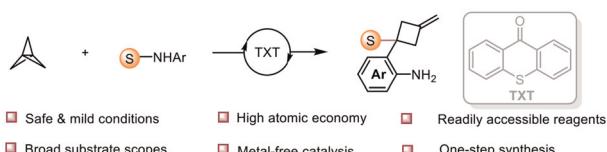
Photoredox-catalyzed cascade difluoromethylation/SO₂ reintegration/polyfluoroarylation of conjugated dienes with a bifunctional CF₂HSO₂Na reagent

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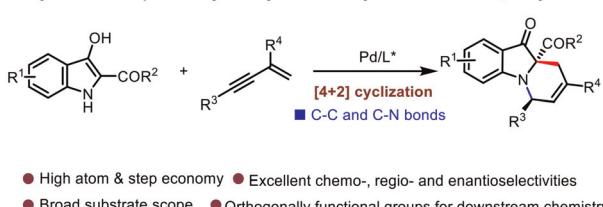


Construction of sulfur-substituted methylenecyclobutanes *via* thioaromatization of [1.1.1]propellane with sulfenamides

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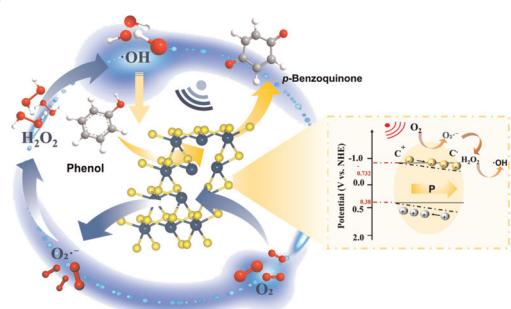
Asymmetric Sequential Hydroalkylation and Hydroamination of 1,3-Enynes



Palladium-catalyzed asymmetric sequential hydroalkylation and hydroamination of 1,3-enynes with 3-hydroxyindoles

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Xinlei Ma, Bo Zhang,* Xin Huang, Qing Xu and Roger Ruan

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Trace electrolyte additives dynamically regulating the zinc anode interface towards stable zinc-based energy storage

Xinyu Yang, Ke Zhang and Liubing Dong*

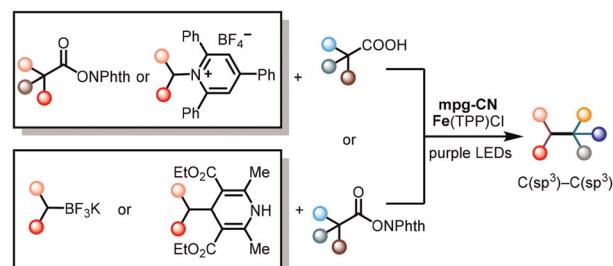


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Semi-heterogeneous dual iron/photocatalytic decarboxylative $C(sp^3)$ - $C(sp^3)$ cross-coupling via radical sorting

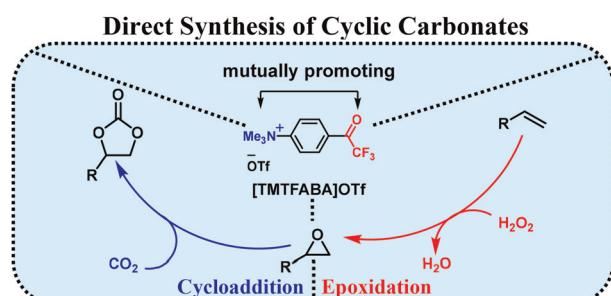
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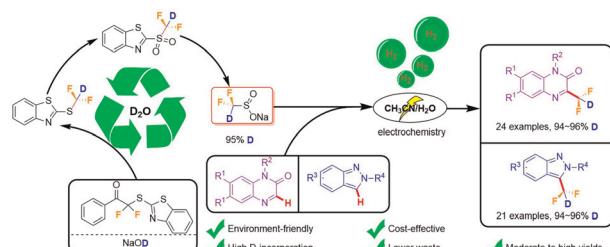
Li-Feng Xu, Wen-Jun Xie, Shan-Shan Chen, Alexander O. Terent'ev, Hong-Ru Li* and Liang-Nian He*



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Electrochemical $C(sp^2)$ -H deuterodifluoromethylation of quinoxalinones and 2H-indazoles with CF_2DSO_2Na

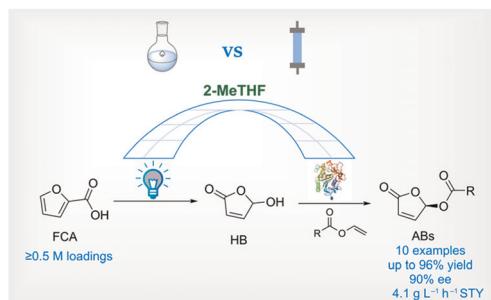
Yuhang Ding, Xin Liu, Yanlin Wu, Meichao Li* and Zhenlu Shen*



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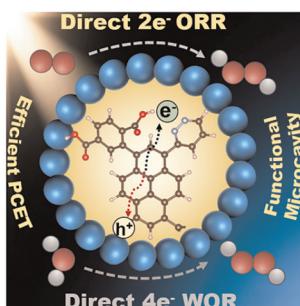
Asymmetric photoenzymatic synthesis of chiral γ -acyloxybutenolides from 2-furoic acid in 2-methyltetrahydrofuran: from batch to flow process

Yi He and Ning Li*



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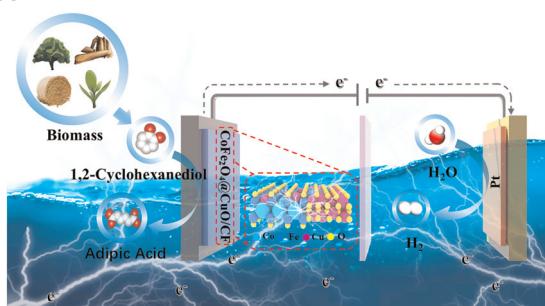
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Spatially confined proton-coupled electron transfer in functional microcavities for photocatalytic H_2O_2 production in pure water

Yanzhuo Zhao, Xiaoya Li, Linghao Liu, Yuanying Liu, Yan Li, Xin Zhang, Hang Wang, Yichao Huang, Lin Wang* and Chuan-De Wu*

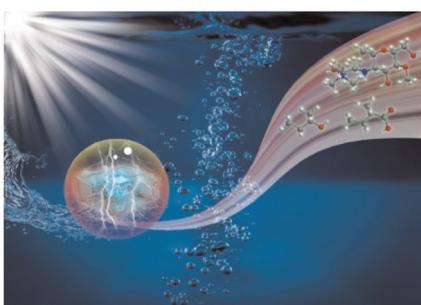
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Electrocatalytic oxidation of 1,2-cyclohexanediol to adipic acid with high faradaic efficiency under high current density over a $\text{CoFe}_2\text{O}_4@\text{CuO}/\text{CF}$ catalyst

Xuzheng Cao, Gang Yan,* Qi Zhao, Huaqiao Tan,* Wensi Tang, Aicen Li and Yangguang Li*

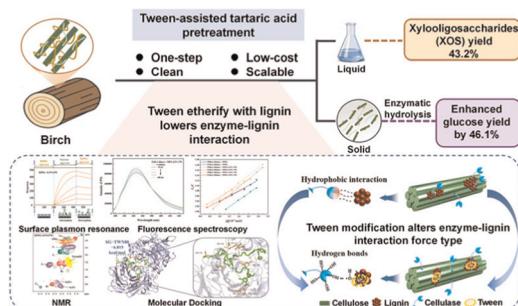
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High-performance multi-component synergistic hydrogel electrolyte with enhanced ion transport for flexible zinc–air batteries and wearable sensors

Qiusheng Zhou,* Li Song, Minmin Song, Linfang Lu, Weihao Pan, Xianying He, Chenxu Zhao, Ziyu Zhao and Chuanyin Xiong*

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A green strategy for co-production of xylooligosaccharides and fermentable sugars from birch via tween-assisted tartaric acid pretreatment

Rutong Jiang, Bin Bian, Ruoyan Li, Qijun Wu, Daihui Zhang, Caoxing Huang, Chenhuan Lai,* Mi Li* and Qiang Yong

