

Green Chemistry

Cutting-edge research for a greener sustainable future

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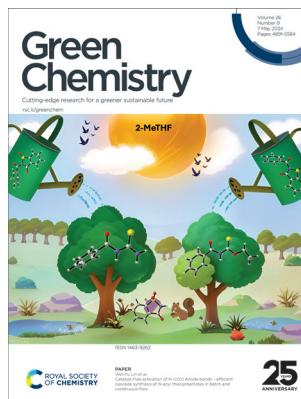
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See Zhicheng Jiang,
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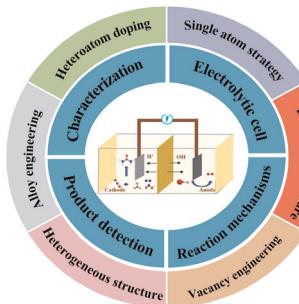
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Karthick Govindan,
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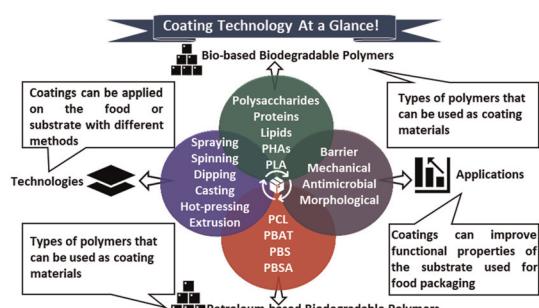
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Fundamental questions
Elemental answers

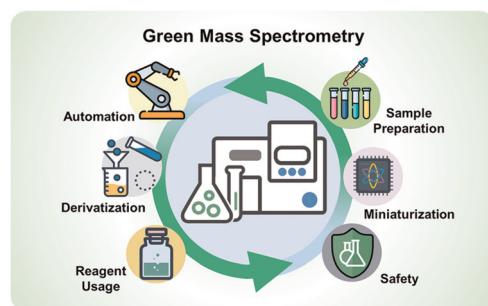
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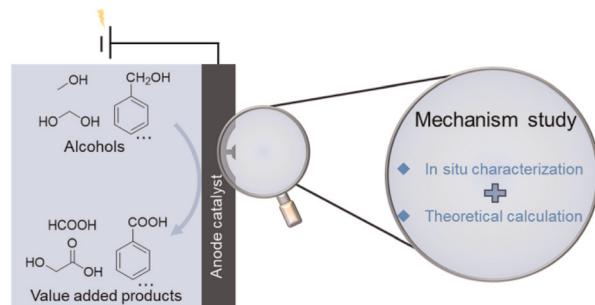
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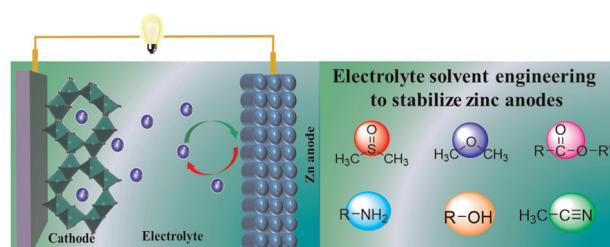
Yuguo Zhao, Emma M. Björk, Yong Yan,* Peter Schaaef and Dong Wang*



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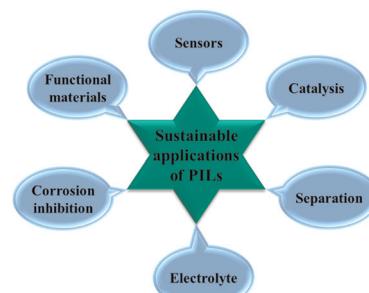
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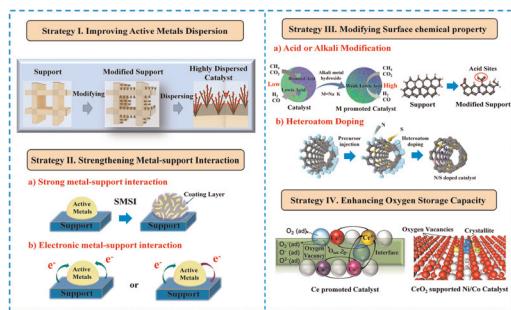
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Maiyong Zhu* and Yu Yang



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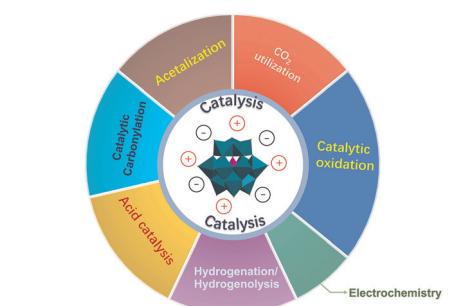


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Yinghui Sun,* Yanbin Zhang, Xifei Yin, Chenghu Zhang, Ying Li and Jie Bai*

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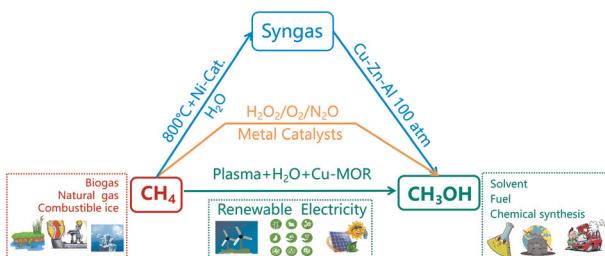


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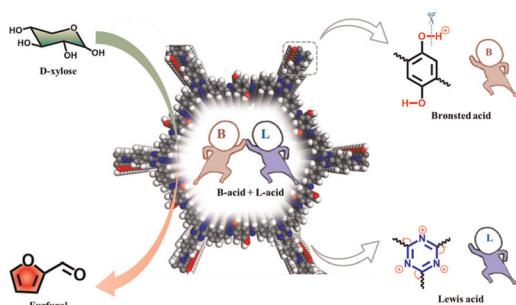
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Peng Gan, Kai Zhang,* Zhihao Li, Chengxiang Zhang, Guihua Yang,* Lei Zhang, Baobin Wang and Jiachuan Chen*

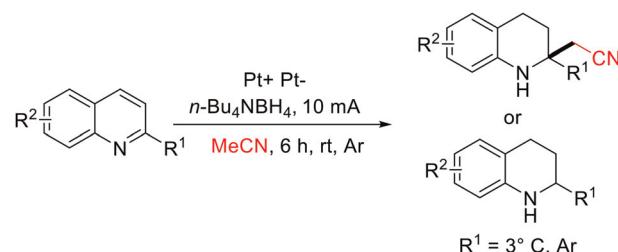


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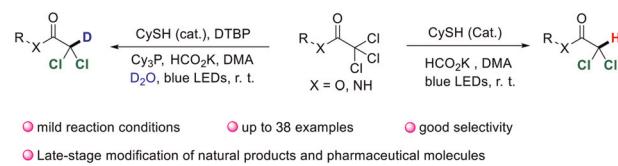
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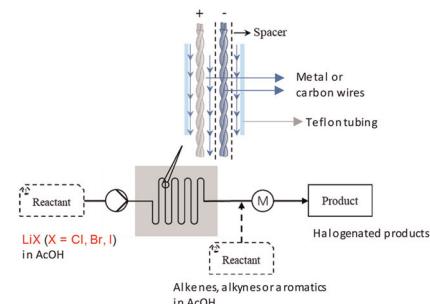
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A continuous flow electrochemical reactor using readily available metal wires and carbon fibers as electrodes: environmentally benign halogenations of alkenes, alkynes, and aromatics

Yinqing Xie, Long Lin and Bo Xu*



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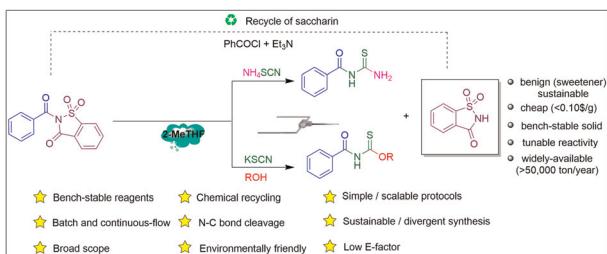
Composite fiber as a multifunctional catalyst support for the upgradation of lignin-based chemicals

Zuzhi Li, Ya Ma, Xingjie Guo, Yang Cao, Qian Jiang, Mi Gao, Xudong Liu, Daniel C. W. Tsang,* Zhicheng Jiang* and Bi Shi



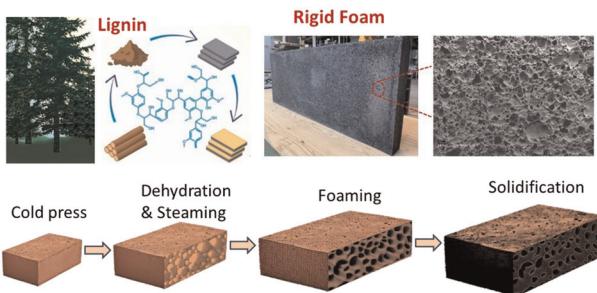
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Catalyst-free activation of N-C(O) Amide bonds – efficient cascade synthesis of *N*-acyl thiocarbamides in batch and continuous-flow
Karthick Govindan, Nian-Qi Chen and Wei-Yu Lin*

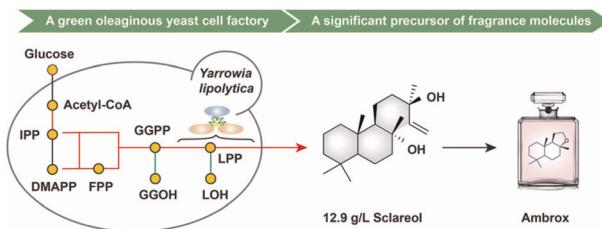
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Qiangu Yan, Timothy Ketelboeter, Wenjun Fan, Caixia Wan* and Zhiyong Cai*

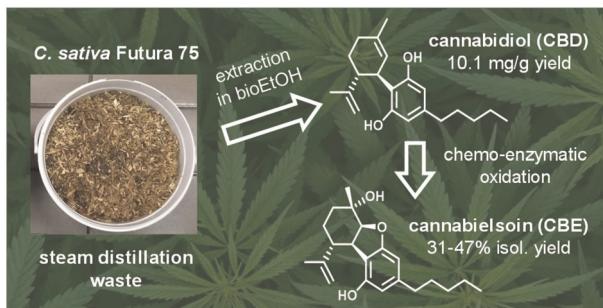
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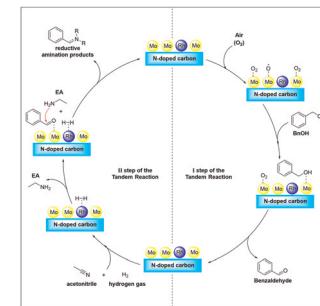


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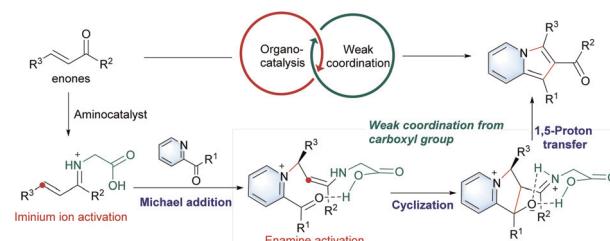
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Weak-coordination-auxiliary aminocatalysis enables directed [3 + 2] cyclization for 2-acylindolizines

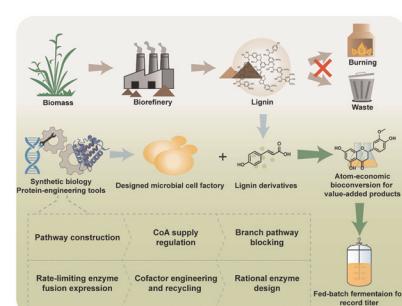
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Si-Yu Zhu, Shi-Chang Liu, Chuan-Xi Zhang, Xin Xin, Zhi-Hua Liu, Lu-Jia Zhang, Bing-Zhi Li* and Ying-Jin Yuan



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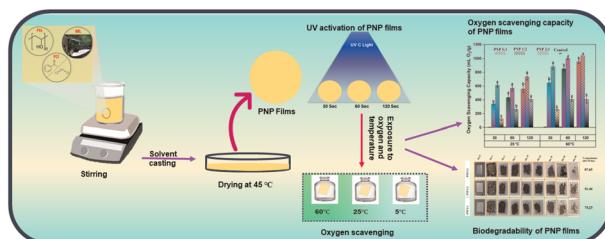
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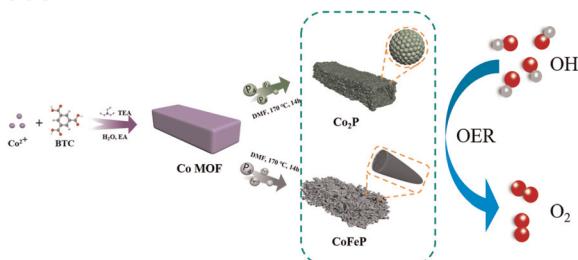
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Thao T. Nguyen, Anuja Sharma, Tam Le Phuong Nguyen, Michael A. Trimble, Dong-Kyun Seo and Ryan J. Trovitch*

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Iron-doped cobalt phosphide nanowires prepared via one-step solvothermal phosphidization of metal-organic frameworks for the oxygen evolution reactions

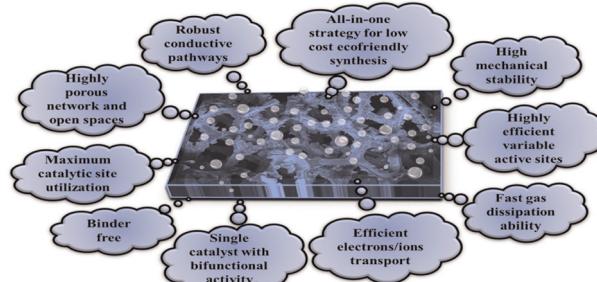
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***In situ* hierarchical self-assembly of NiFeHCF nanoparticles on nickel foam: highly active and ultra-stable bifunctional electrocatalysts for water splitting and their environmental assessment towards green energy**

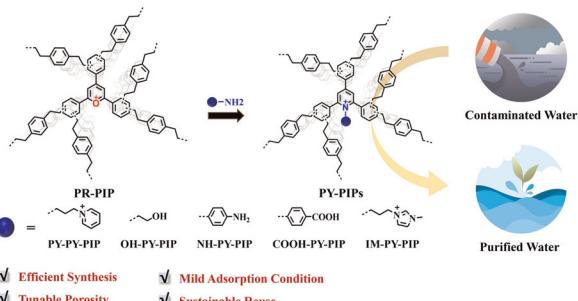
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Construction of a tunable pyrylium based porous ionic polymer network for efficient waterborne pollutant treatment

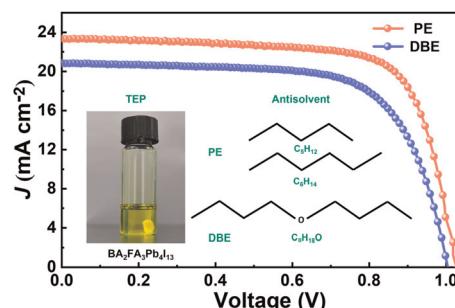
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Antisolvent effects in green solvent engineering of FA-based quasi-2D Ruddlesden–Popper perovskite films for efficient solar cells

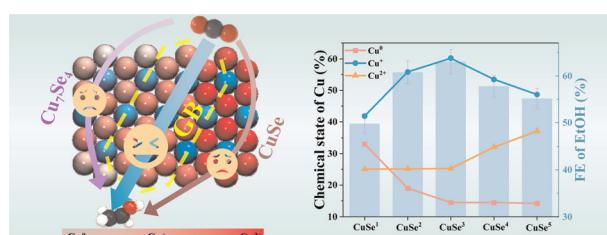
Guoshuai Zhang, Jun Tang, Chenming Wang, Xianyao Wu, Jie Chen, Xi Wang, Kai Wang, Xixiang Zhu, Haomiao Yu and Jinpeng Li*



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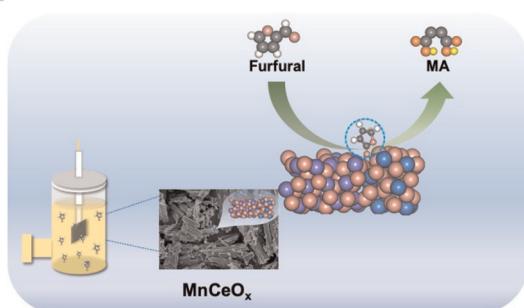
Grain boundaries assisting the generation of abundant Cu⁺ for highly selective electroreduction of CO₂ to ethanol

Xinze Bi, Yuezhu Zhao, Yifan Yan, Hongzhi Wang* and Mingbo Wu*



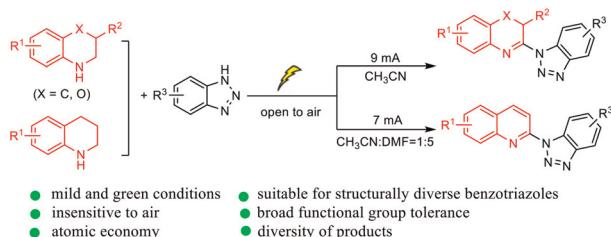
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Highly efficient electrocatalytic oxidation of furfural to maleic acid over MOF-derived MnCeO_x

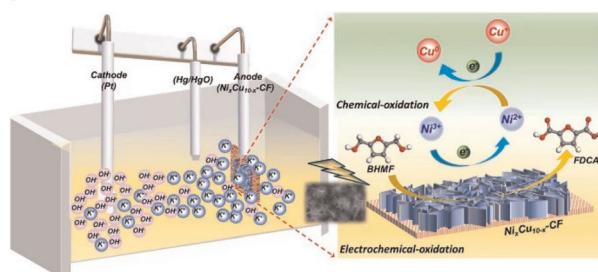
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Electrochemical oxidative cross-coupling of tetrahydroquinolines and azoles

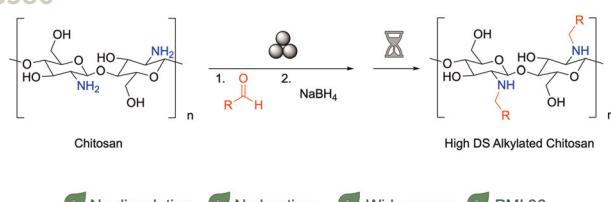
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Mechanochemical and aging-based reductive amination with chitosan and aldehydes affords high degree of substitution functional biopolymers

Galen Yang, Sophie Régnier, Noah Huin, Tracy Liu, Edmond Lam* and Audrey Moores*

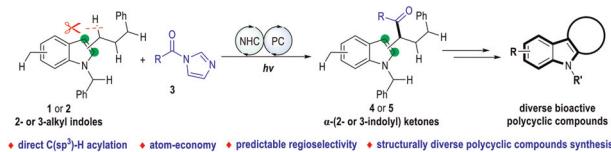


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N-heterocyclic carbene and photocatalyst-catalyzed rapid access to indole ketones *via* radical C(sp³)-H acylation

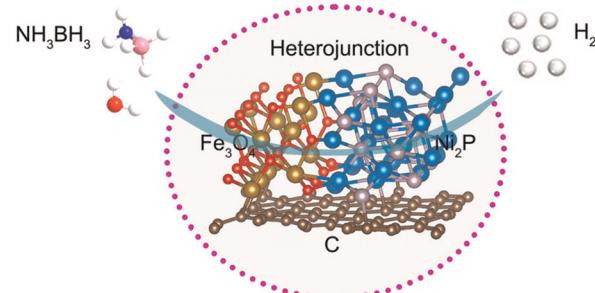
Guihua Nie, Ting Tu, Tianhui Liao, Donghan Liu, Wenjun Ye and Shi-Chao Ren*



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In situ formed nickel phosphide/iron oxide heterojunction for accelerating hydrogen generation

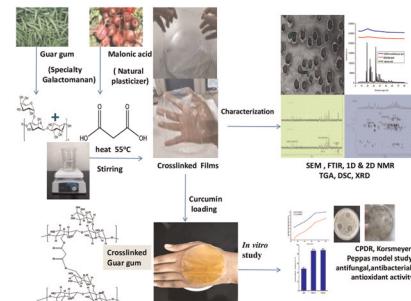
Wenjing Xu,* Wei Li, Wei Chen, Mei Liu, Xianji Guo and Baojun Li*



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Galactomannan crosslinking with a green plasticizer malonic acid and its biomedical applications

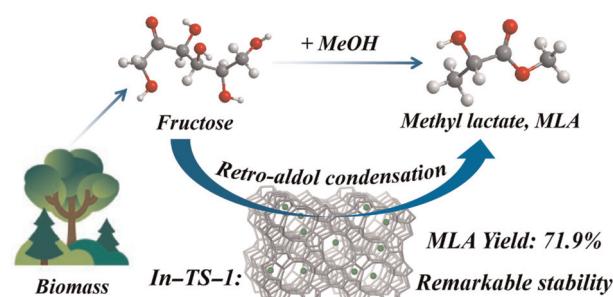
Jyoti Rajput, Vineet Kumar,* Kalpana Chauhan, Vipin Parkash and Sushil Bhattarai



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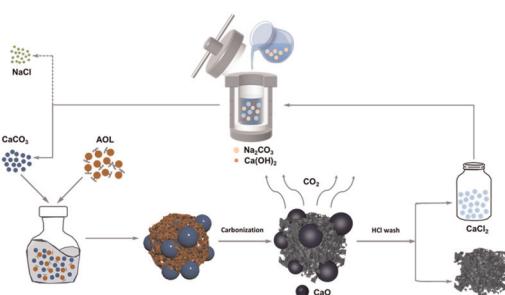
An encapsulation strategy to design an In-TS-1 zeolite enabling high activity and stability toward the efficient production of methyl lactate from fructose

Yuxi Jiang, Xilei Lyu,* Chao Chen, Aotian Ren, Wenqi Qin, Hao Chen* and Xiuyang Lu*



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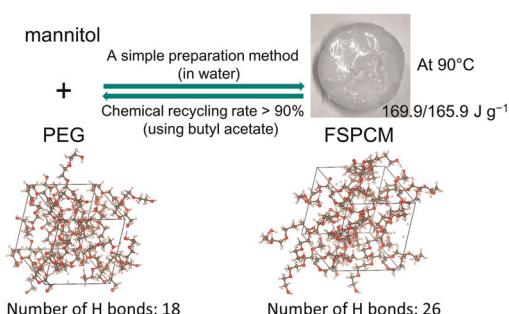
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Sustainable lignin-derived hierarchical mesoporous carbon synthesized by a renewable nano-calcium carbonate hard template method and its utilization in zinc ion hybrid supercapacitors

Jiahao Zhu, Tao Huang, Manjia Lu, Xueqing Qiu* and Wenli Zhang*

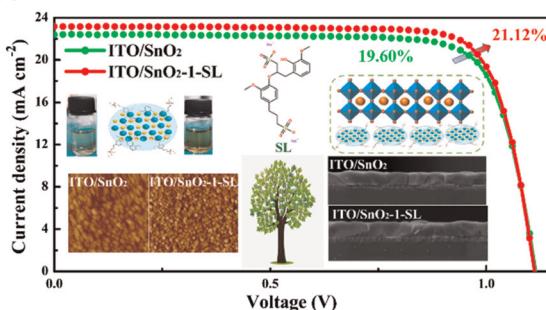
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A form-stable phase change material based on intermolecular hydrogen bonding with a high chemical recycling rate

Xinyi Shen, Yulin Liu, Na Li, Haiyan Ju,* Xiaowei Fu, Liang Jiang, Yao Xiao,* Ping He* and Jingxin Lei*

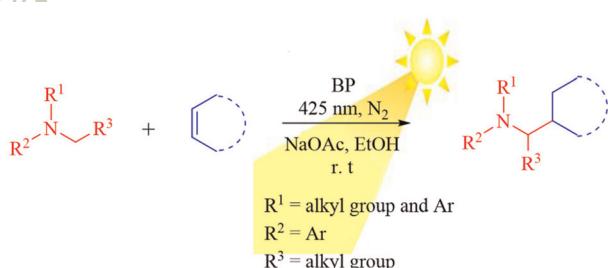
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Performance enhancement of perovskite solar cells by doping non-toxic multifunctional natural sodium lignosulfonate into SnO₂

Zezhuan Jiang, Fuling Li, Huaiqing Yan, Rathers Kannan R, Lijia Chen, Ping Li* and Qunliang Song*

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Photocatalytic α -aminoalkyl radical addition of amines mediated by benzophenone under visible light

Jinke Chen, Qi Lian, Xinru Jiang, Juan Zhang, Xiang Luo,* Jiansong Fang* and Wentao Wei*

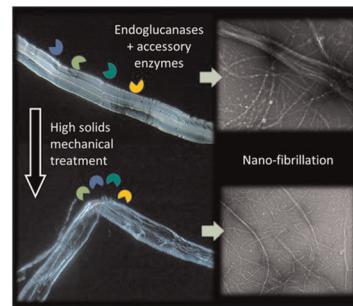


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Production of lignin containing cellulose nanofibrils (CNF) after enzymatic treatment of curl-induced, unbleached kraft pulps

Jie Wu, Yintian Dong, Xia Sun, Peipei Wang, Jiaying Zhu, Yeling Zhu, Feng Jiang and Jack Saddler*



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Enhancement of hydrogen production *via* methanol steam reforming using a Ni-based catalyst supported by spongy mesoporous alumina

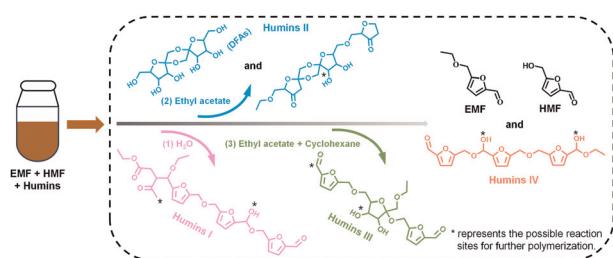
Bin Hu, Ruiyang Shu,* Zhipeng Tian, Chao Wang, Ying Chen and Ying Xu*



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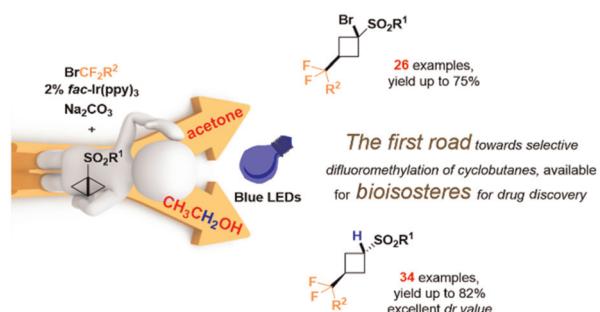
Hui Li, Yexin Hu, Ping Hu, Linzhen Li, Di Wu, Zhdan Xue, Changwei Hu and Liangfang Zhu*



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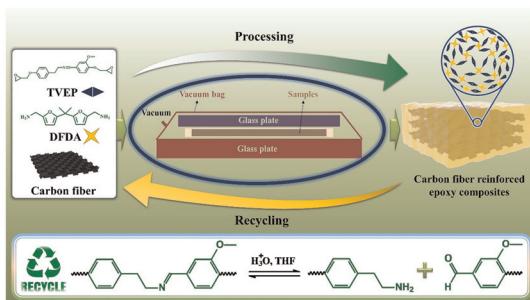
Photochemical selective difluoroalkylation reactions of bicyclobutanes: direct sustainable pathways to functionalized bioisosteres for drug discovery

Yunxin Duan, Yerong Xu, Yunzhe Li, Lin Mao, Jianquan Feng, Ruyue Zhang, Weifang Tang, Tao Lu,* Yadong Chen* and Jie Feng*



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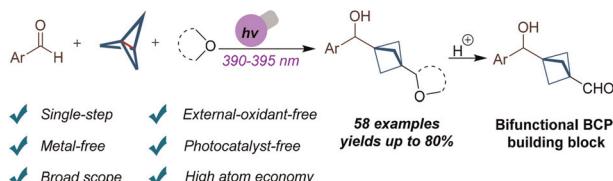
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High biomass content, anti-flammable and degradable epoxy thermosets by curing a tyramine-derived epoxy monomer with a furan-derived diamine for non-destructively recyclable carbon fiber composite application

Hao-Xin Niu, Tian-Mo Yang, Xin Wang,* Ping Zhang, Wenwen Guo, Lei Song and Yuan Hu*

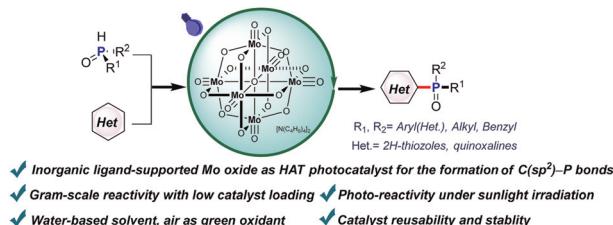
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Metal- and photocatalyst-free three-component strategy to prepare benzylalcohol-, aldehyde-substituted BCP building blocks

Fei Li, Huijuan Liao, Jianyang Dong, Weikang Xiong, Yonggang Yan, Gang Li and Dong Xue*

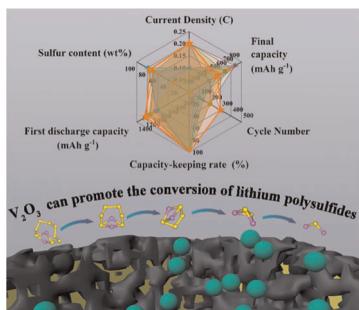
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Inorganic ligand-supported Mo oxide as a hydrogen atom transfer photocatalyst for direct $C(sp^2)-H$ phosphorylation

Zeqi Jiang,* Shuangfei Jiang, Jin Gao, Junmei Xia, Hongwei Yu, Lixin Ma, Xi Chen, Bo Chen, Xinghua Zhang* and Wenchao Zhu*

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Conductive V_2O_3 electrocatalyst on carbon hollow spheres to accelerate polysulfide conversion for long-cycle and high-rate lithium sulfur batteries

Jiangnan Zhang, Mingjun Xiao,* Tingting Liu, Yanshuang Meng, Fuliang Zhu* and Zhaoyang Fan*



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Preparation of chemically recyclable bio-based semi-aromatic polyamides using continuous flow technology under mild conditions

Yirong Feng, Xiaowei Li, Tingting Ma, Yuguang Li, Dong Ji, Hong Qin, Zheng Fang, Wei He* and Kai Guo*



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Carbonic anhydrase assisted acidogenic fermentation of forest residues for low carbon hydrogen and volatile fatty acid production: enhanced *in situ* CO_2 reduction and microbiological analysis

Omprakash Sarkar,* Io Antonopoulou,* Charilaos Xiros, Ylva Bruce, Sarra Souadkia, Ulrika Rova, Paul Christakopoulos and Leonidas Matsakas*

