

Green Chemistry

Cutting-edge research for a greener sustainable future

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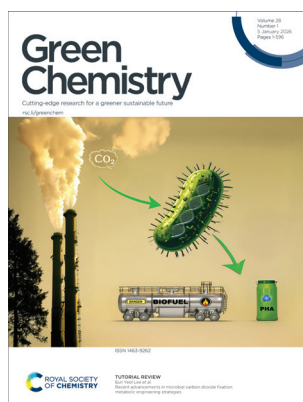
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Cover
See Javier Pérez-Ramírez *et al.*, pp. 174–185.

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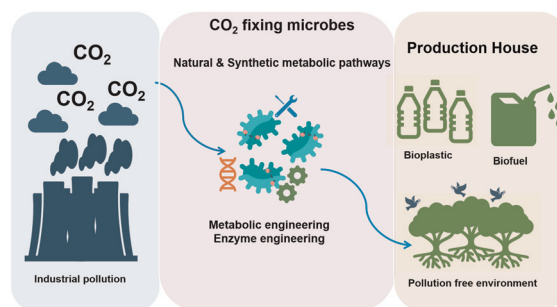
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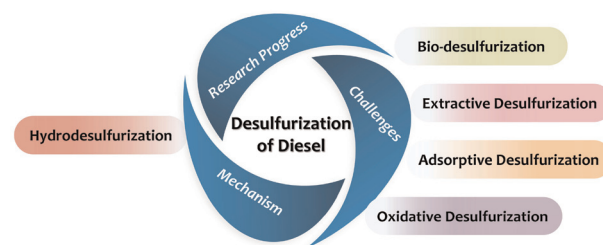
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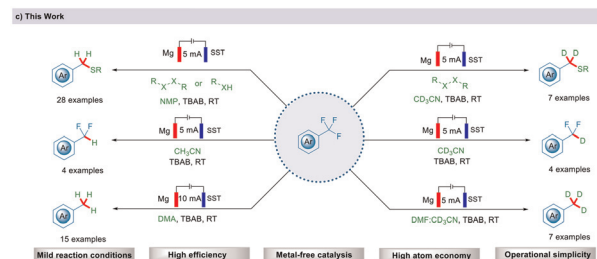


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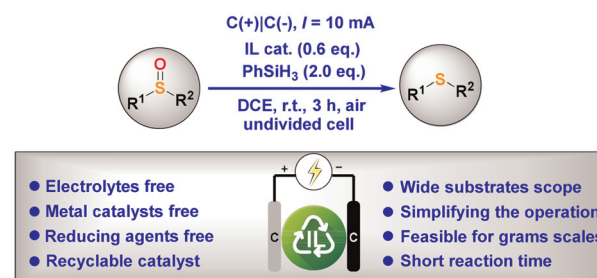
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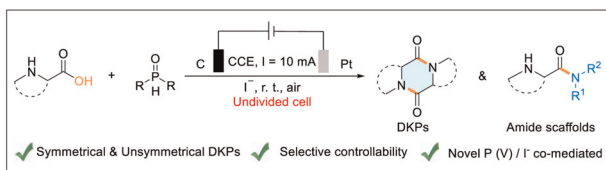
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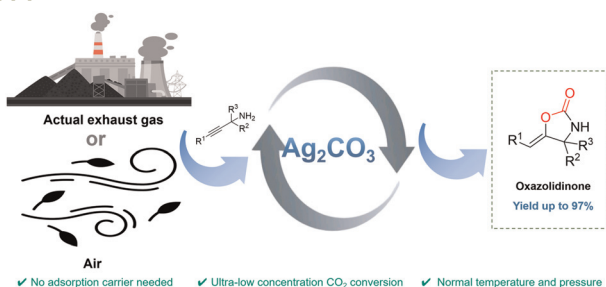
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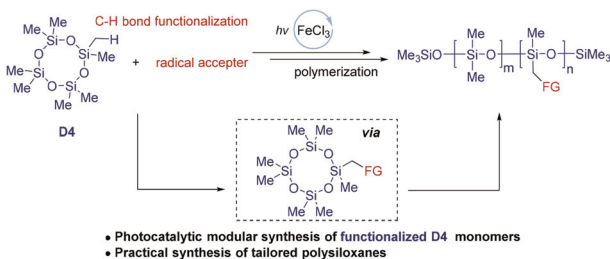
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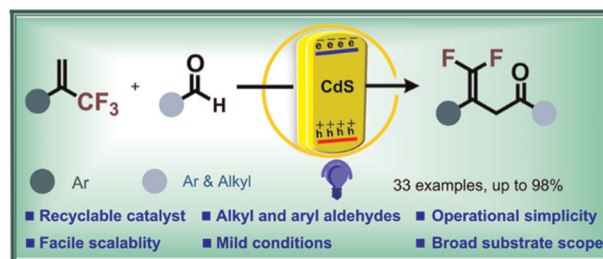


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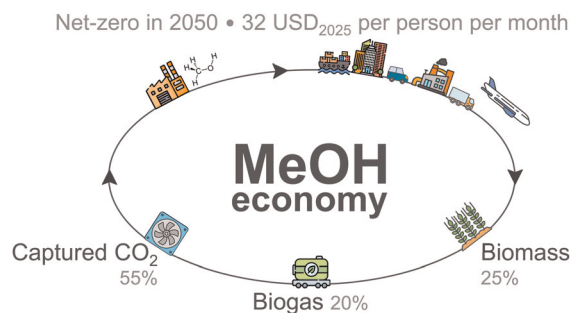


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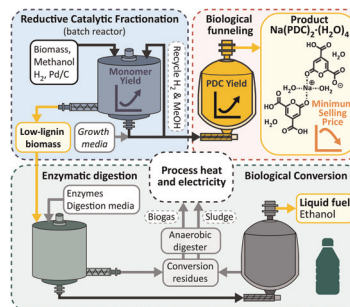
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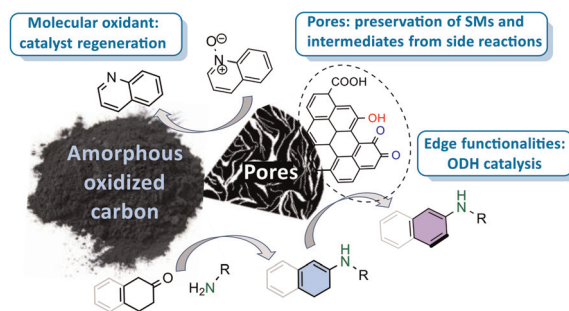
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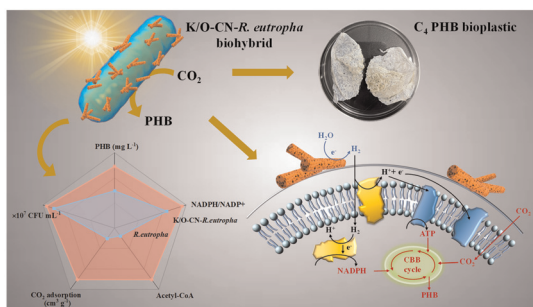
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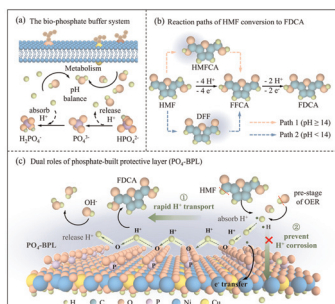
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Wenjing Wang,* Mingzhi Zhang, Meng Guo, Jiaxin Wang, Xuelian Wang, Jianheng Yin, Liang Chen and Yaguang Li*

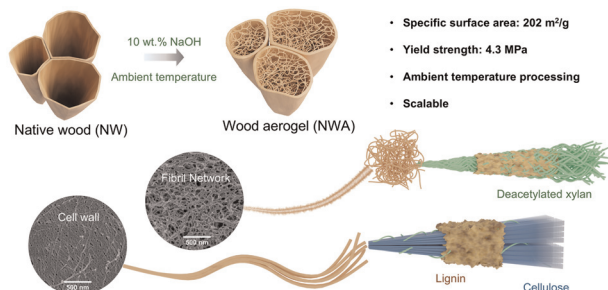
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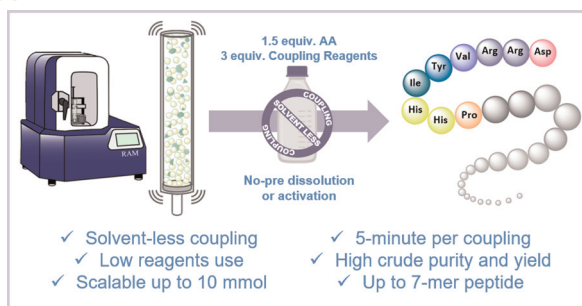
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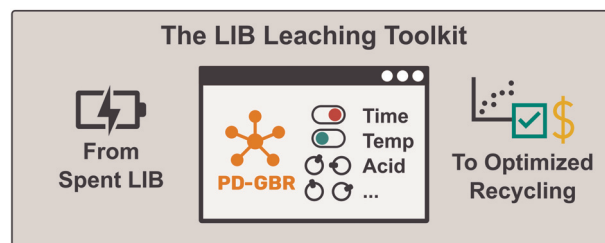
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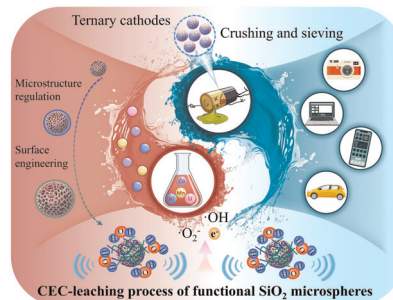
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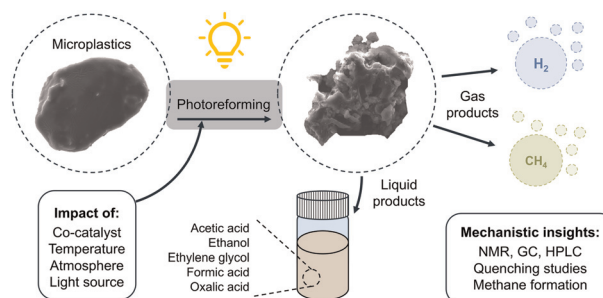
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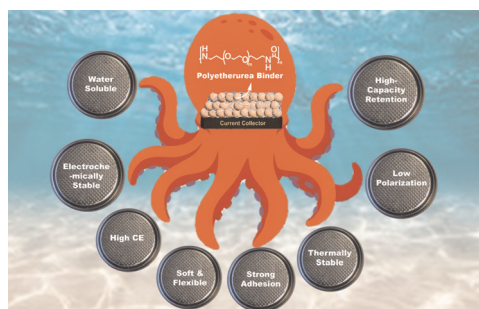
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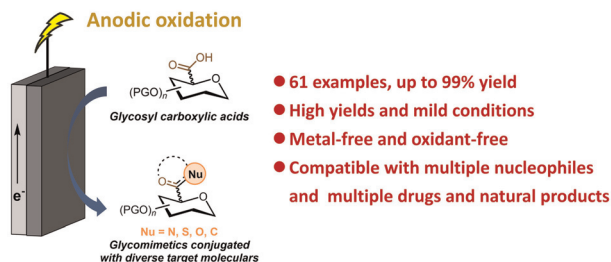
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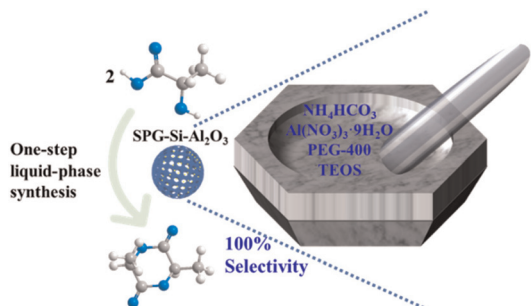
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An electrochemically promoted modular synthesis of diverse glycomimetics via acyloxyphosphonium ions

Yi-Min Jiang, Cheng-Lin Ding, Guizhen Zhang, Hongbao Sun* and Jie Liu*

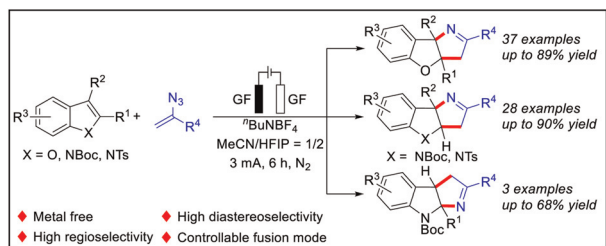
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Si-doped γ -Al₂O₃ from solid-phase grinding for highly efficient one-step production of L,L-lactide

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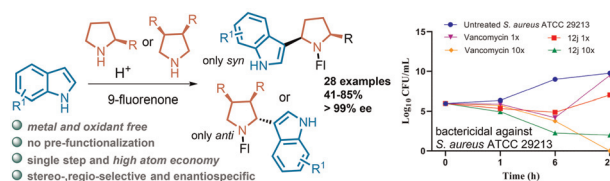
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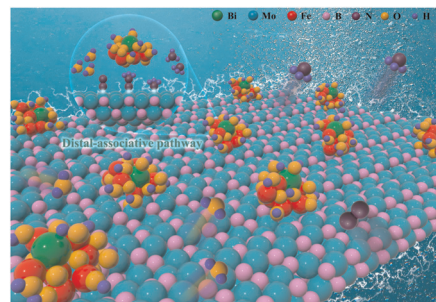
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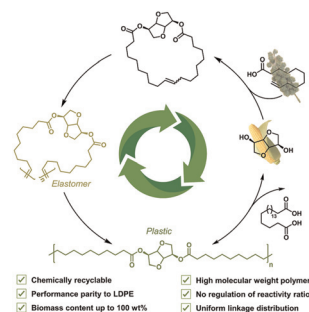
Kun Cheng, Shaobin Li,* Qingyu Cheng, Li Zhang,* Yufeng Jiang, Fengbo Li and Xiaoqing Lv



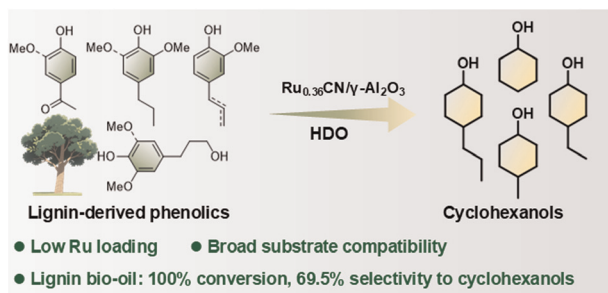
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Chemically recyclable, fully biobased polyolefins with performance parity to low-density polyethylene

Wei Sun, Yuzhe Pang, Yucheng He, Zhenyang Luo, Puyou Jia,* Yonghong Zhou* and Ye Sha*



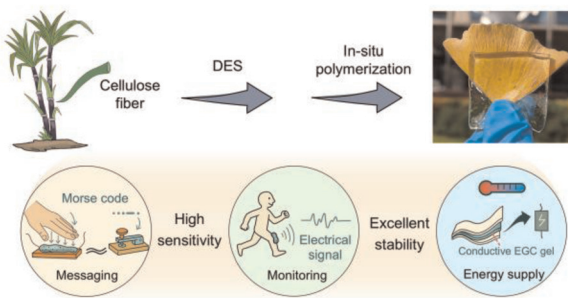
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Selective hydrodeoxygenation of lignin phenolics to cyclohexanols over low-Ru catalysts

Rumin Ma, Xueying Gao, Xiancheng Li, Shuizhong Wang* and Guoyong Song*

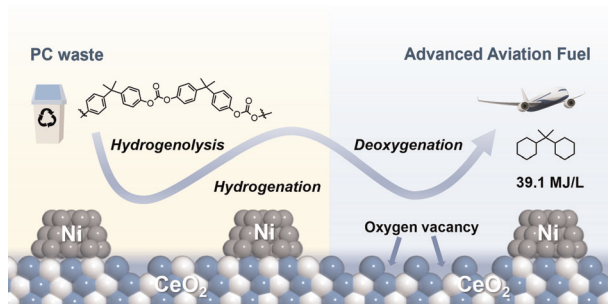
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Eco-designed cellulose-reinforced deep eutectic gels with synergistic mechanical strength, ionic conductivity, and freezing tolerance for flexible electronics

Xiangyu Lin, Jie Li, Fei Fu, Ziming Zhu, Yuandong Xu,* He Liu* and Xu Xu*

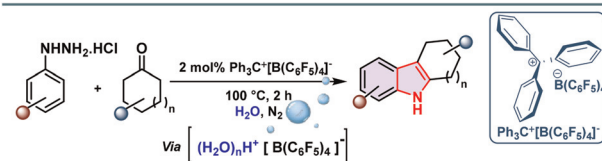
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Chemical recycling of polycarbonate waste into advanced aviation fuel candidates via nickel–oxygen vacancy dual sites

Yushuang Huang, Jiawei Xie,* Yisong Zhou, Qianqian Song, Yuan Lei, Chang-an Zhou, Chao Wang, Kui Ma, Lei Song, Hairong Yue and Ji-Jun Zou

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- Superacidic Bronsted acid pre-catalyst
- Natural product scaffolds
- Aqueous conditions
- Non-Metal mediated approach
- First report ion-pair-catalyzed Fischer indole synthesis
- Metal-free & Aqueous conditions
- Structurally diverse library
- Sustainability toolbox
- Operational simplicity
- 45 examples from good to excellent yields of carbazole derivatives

An ion-pair as a superacidic pre-catalyst for the synthesis of indole alkaloids: a novel entry into the Fischer indole synthesis

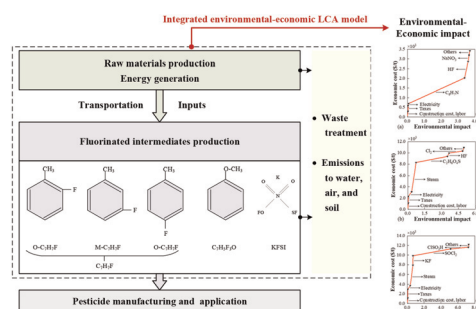
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Exploring the environmental and economic performance of fluorinated intermediates in pesticide manufacturing: a life cycle assessment perspective

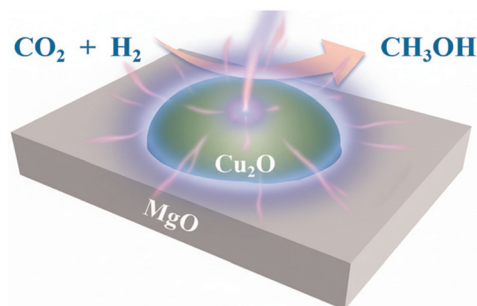
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CO₂ hydrogenation to CH₃OH promoted by strong Cu_xO–MgO interactions and non-thermal plasma under mild conditions

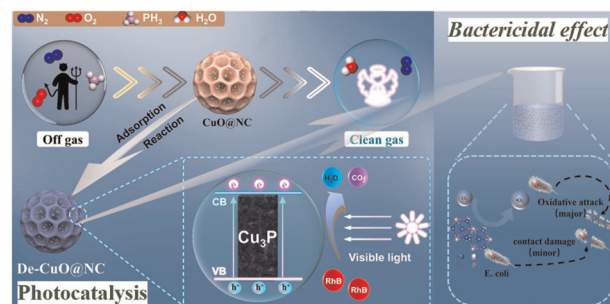
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Low-temperature purification of phosphine (PH₃) using CuO@NC sorbents: simultaneous pollutant removal and Cu₃P resource recovery

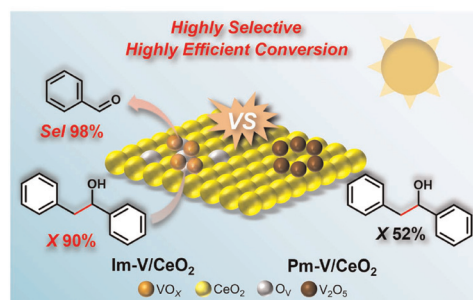
Zhongxian Wang, Jiuyang He, Jiayu Feng, Chaoyang Peng, Can Niu, Yixing Ma, Xin Sun, Fei Wang,* Lian Wang,* Ping Ning and Kai Li*



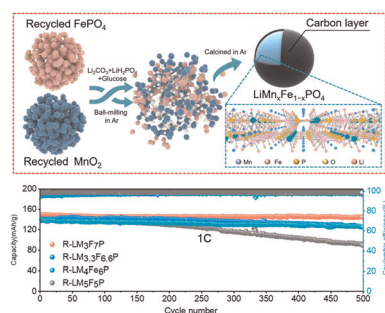
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Engineering oxygen vacancies on ceria via vanadium oxide dispersion for selective photocatalytic cleavage of lignin C–C bonds

Yongqi Zhuang, Yuguo Dong, Yanmei Zheng, Wenjun Zhang, Lin Dong and Zupeng Chen*



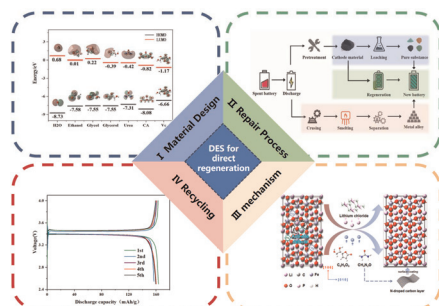
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Upcycling lithium extraction by-products from spent lithium-ion batteries into high-voltage polyanionic $\text{LiMn}_x\text{Fe}_{1-x}\text{PO}_4$

Fan Xiao, Lehan Zhu, Zhangjun Wu, Haotian Zhu, Juan Xia, Jiannan Zhu,* Zeheng Yang* and Weixin Zhang*

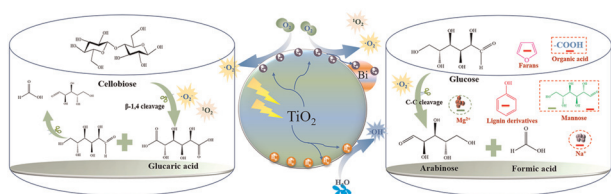
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Using green deep eutectic solvents for targeted regeneration to improve the cycle life of spent lithium iron phosphate batteries

Jin Wu, Lin Chen,* Ruichao Zhu, Yixuan Zhou, Chuqing Cao, Liang Zhu and Jun Zhang

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Cellulose and glucose photorefining over non-noble Bi^0 -modified TiO_2 with oxygen vacancies: unraveling the effects of lignocellulosic derivatives and oxidation mechanism

Tingting Zhang, Xinyao Zhang, Suhang Cheng, Dong Tian, Li Zhao, Jiufu Chen, Jinguang Hu and Fei Shen*

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Constructing recyclable biomass-derived thermosetting polymers via a solvent-free and catalyst-free Knoevenagel condensation reaction

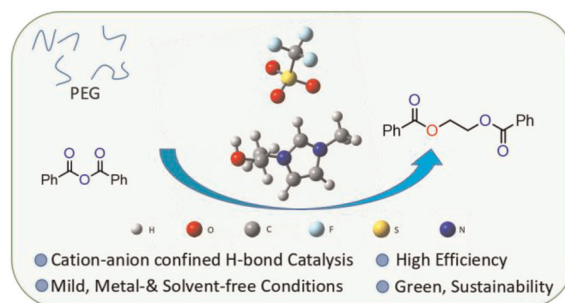
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A strategy of H-bond confinement catalysis for efficient degradation of polyethylene glycol into glycol diester over an OH-functionalized ionic liquid

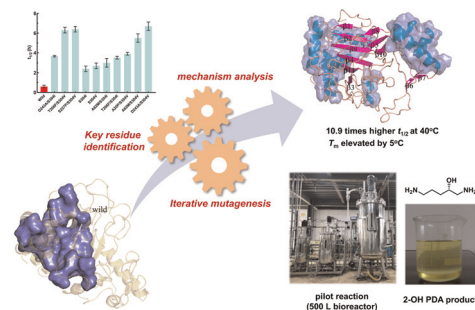
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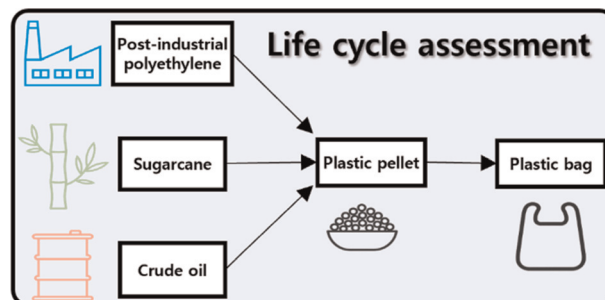
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Comparative life cycle assessment study of virgin polyethylene and bio-polyethylene, with recycled polyethylene from uncontaminated post-industrial film

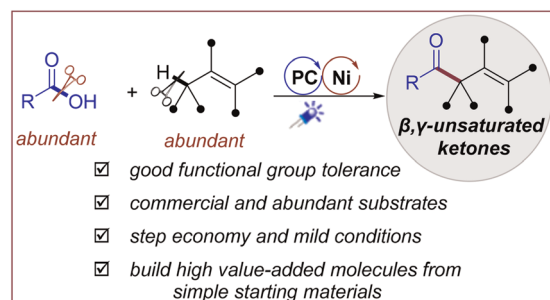
Ahdo Kim, Teuku Naraski Zahari, Nobuteru Edayoshi, Pin Juo Chou, Toshiki Yamamoto, Pin Yen Chou, Kei Saito* and Benjamin McLellan*



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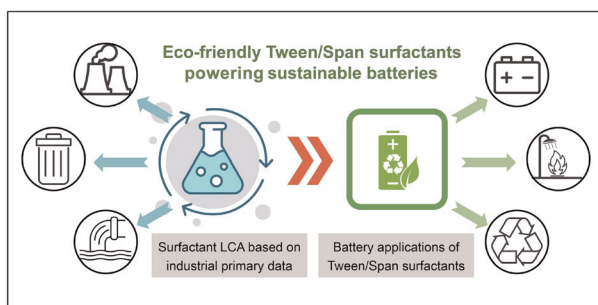
Direct allylic C(sp³)-H acylation of alkenes via metallaphotoredox catalysis using carboxylic acids

Xin Ge, Can-Quan Ye, Mei Huang, Meng-Ning Wang, Jie-Yu Chen, Ri-Yuan Tang* and Bo Yang*



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Green surfactants powering sustainable batteries: industrial-scale life cycle assessment of Tween and Span surfactants for battery systems

Shiyu Wang, Likun Zhao, He Ye, Zhan Shi, Huakui Zhang, Fengyin Zhou, Simin Xu, Lei Xing, Dihua Wang* and Huayi Yin*

CORRECTION

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Correction: Deep eutectic solvent engineering: a novel ternary system for efficient lignocellulose extraction

Guanzheng Wu, Yu Cheng, Caoxing Huang, Cheng Yong* and Yu Fu*

