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Cutting-edge research for a greener sustainable future

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ISSN 1463-9262 CODEN GRCHFJ 25(20) 7829–8296 (2023)



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See Wei-Min He *et al.*, pp. 7983–7987.

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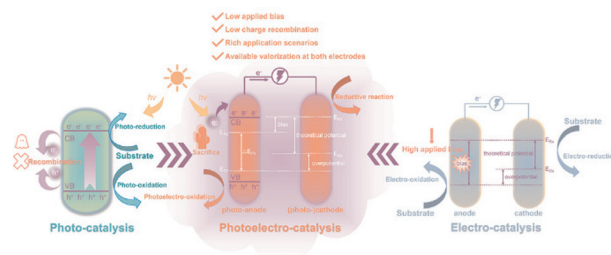
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Sacrifice and valorization of biomass to realize energy exploitation and transformation in a photoelectrochemical way

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Gustavo S. Luengo,* Fabien Leonforte, Andrew Greaves, Ramon G. Rubio and Eduardo Guzman*



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Green Chemistry electronic:

ISSN 1463-9270 is published 24 times

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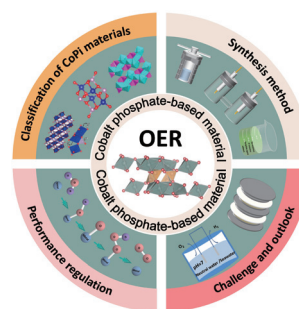


TUTORIAL REVIEWS

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Research status, opportunities, and challenges of cobalt phosphate based materials as OER electrocatalysts

Xingheng Zhang, Qi Hou, Shoufu Cao, Xiaojing Lin, Xiaodong Chen, Zhaojie Wang,* Shuxian Wei, Siyuan Liu, Fangna Dai and Xiaoqing Lu*

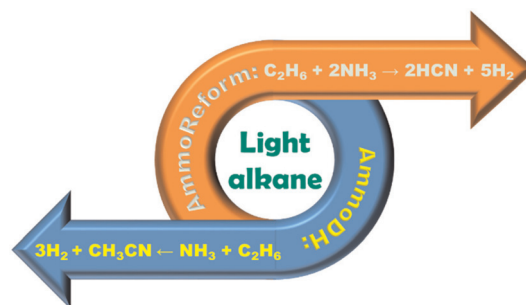


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Ammonia-assisted reforming and dehydrogenation toward efficient light alkane conversion

Yizhi Xiang

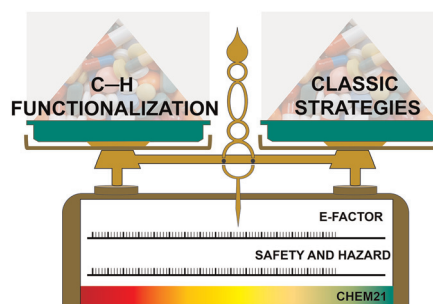


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Classic vs. C–H functionalization strategies in the synthesis of APIs: a sustainability comparison

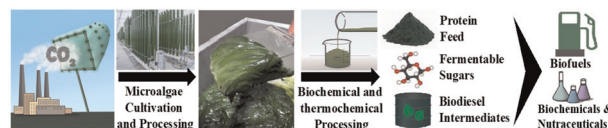
Francesco Ferlin, Giulia Brufani, Gabriele Rossini and Luigi Vaccaro*



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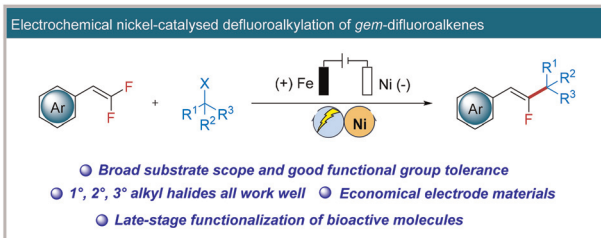
Potential of using microalgae to sequester carbon dioxide and processing to bioproducts

Venkatesh Balan,* James Pierson, Hasan Husain, Sandeep Kumar, Christopher Saffron and Vinod Kumar



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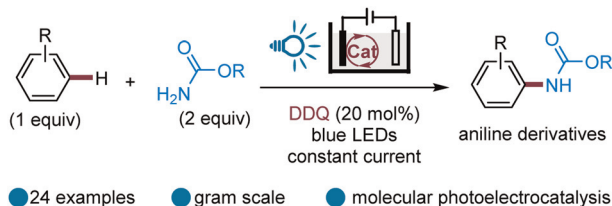
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Electrochemical nickel-catalysed defluoroalkylation of *gem*-difluoroalkenes with alkyl halides

Yin Liu, Pengfei Li, Jun Tan, Guangsheng Kou, Dengke Ma* and Youai Qiu*

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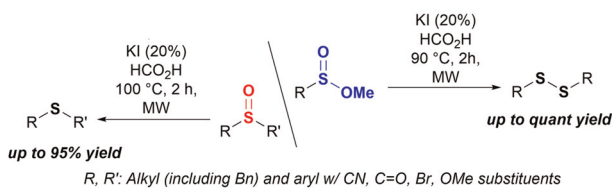


Photoelectrocatalytic C–H amination of arenes

Zhong-Wei Hou, Hong Yan, Jinshuai Song* and Hai-Chao Xu*

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Hydrogen-Bonding Formic Networks Enhance Brønsted Acid Activity

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Fukun Cheng, Lulu Fan,* Qiyang Lv, Xiaolan Chen* and Bing Yu*

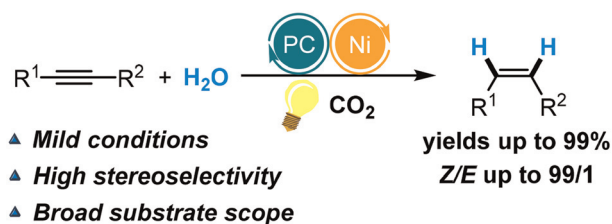


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CO₂ promoted photoredox/Ni-catalyzed semi-reduction of alkynes with H₂O

Shenhao Chen and Chanjuan Xi*

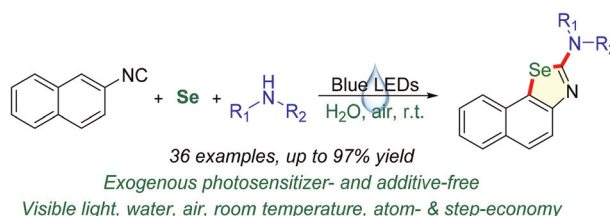


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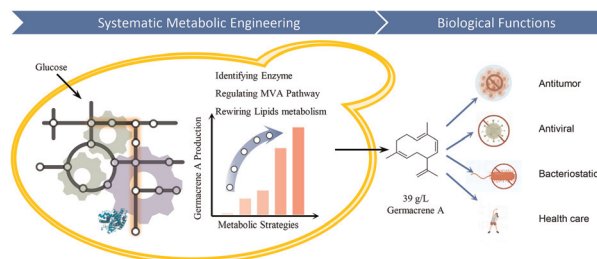
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Reprogramming the metabolism of oleaginous yeast for sustainably biosynthesizing the anticarcinogen precursor germacrene A

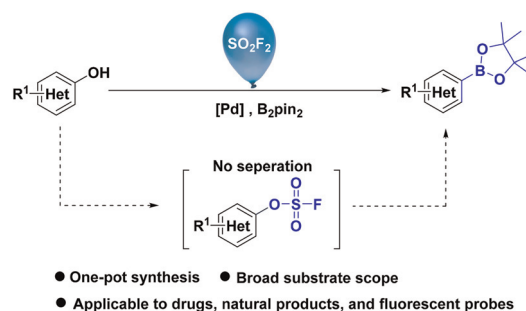
Qi Liu, Ge Zhang, Liqiu Su, Pi Liu, Shiru Jia, Qinhong Wang and Zongjie Dai*



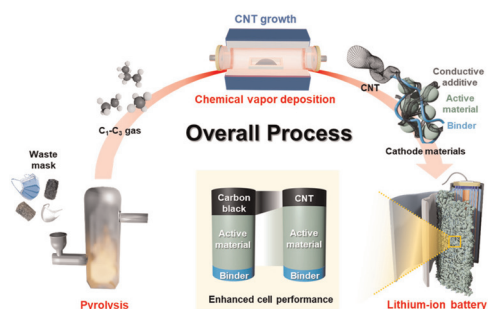
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Zhengjun Chen, Yan Liu, Chunhua Zeng, Changyue Ren, Hongyu Li, Rajenahally V. Jagadeesh,* Zeli Yuan* and Xinmin Li*



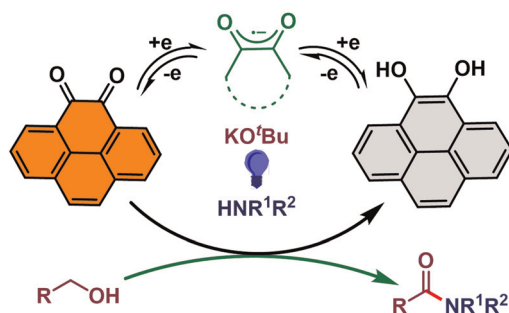
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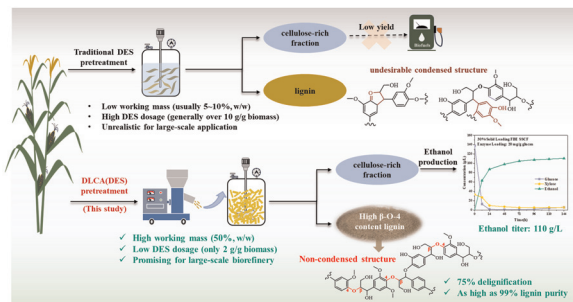
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Organophotocatalytic dehydrogenative preparation of amides directly from alcohols

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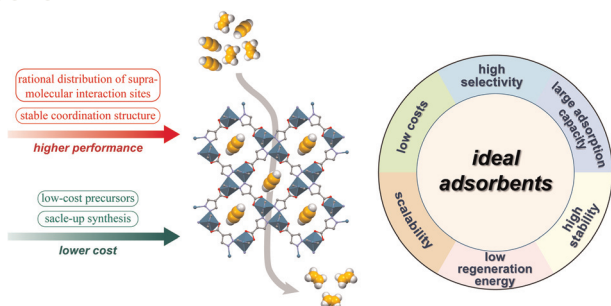
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Guannan Shen, Xinchuan Yuan, Yin Cheng, Sitong Chen, Zhaoxian Xu and Mingjie Jin*

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A scalable stable porous coordination polymer synthesized from low-cost precursors for efficient C₂H₂/C₂H₄ separation

Hengcong Huang, Yifan Gu, Luyao Wang, Tao Jia, Susumu Kitagawa and Fengting Li*

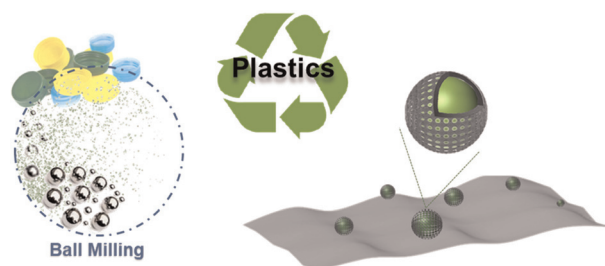


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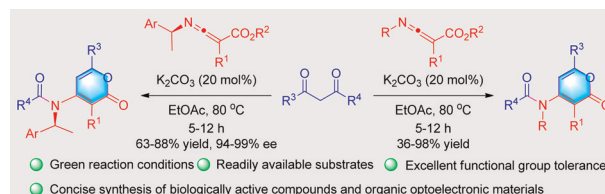
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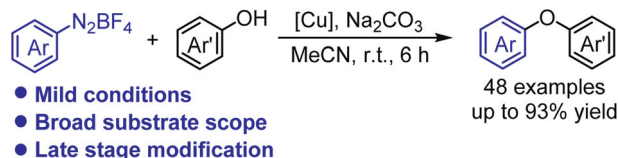
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Copper-catalyzed O-arylation of phenols with diazonium salts

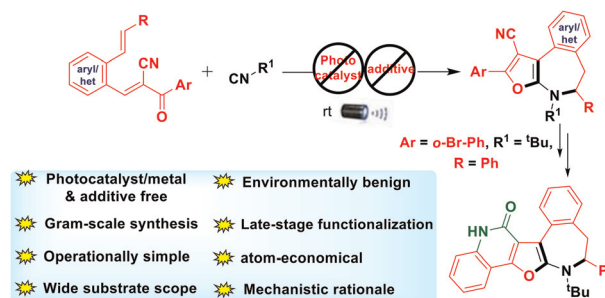
Xin Fang, Chengning Qi, Xiangqian Cao, Zhi-Gang Ren, David James Young and Hong-Xi Li*



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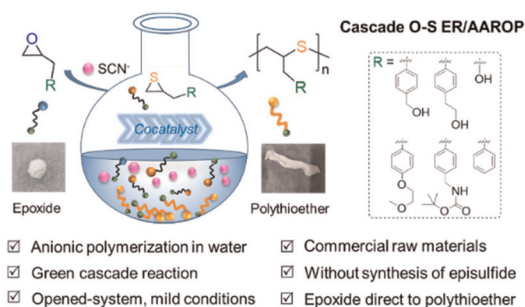
Photocatalyst- and transition-metal-free syntheses of furan-fused dihydroazepines by visible light

Babasaheb Sopan Gore,* Chiao-Ying Kuo and Jeh-Jeng Wang*



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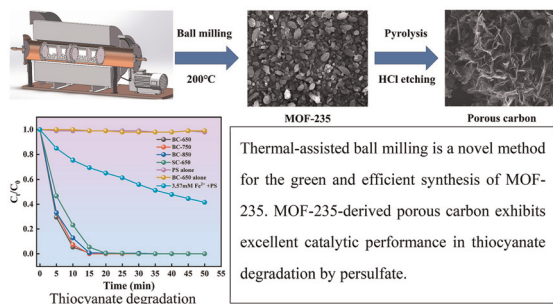
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Green synthesis of well-defined linear poly(hydroxyl thioether) direct from epoxide in water

Ying Quan, Cuihong Ma, Qiancai Liu, Zhiying Han, Huijing Han, Xiaojuan Liao,* Ruyi Sun* and Meiran Xie*

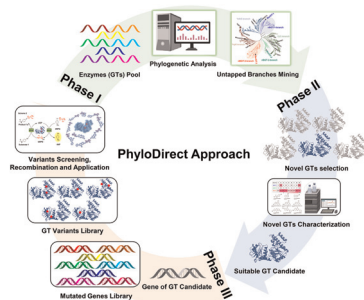
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Green and efficient synthesis of hierarchical porous carbon derived from MOF-235 for catalytic degradation of thiocyanate

Yang Yang, Binchuan Li, Daxue Fu, Jianshe Chen, Shuang Cui, Xiaocai He, Kuiren Liu, Shicheng Wei, Da Li and Qing Han*

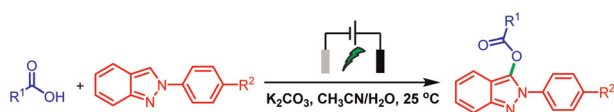
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A phylogeny-based directed evolution approach to boost the synthetic applications of glycosyltransferases

Peng Zhang, Yu Ji,* Shuaiqi Meng, Zhongyu Li, Dennis Hirtz, Lothar Elling and Ulrich Schwaneberg*

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Electrochemical C3 acyloxylation reactions of 2H-indazoles with carboxylic acids via C(sp²)-O coupling

Xin Liu, Yibin Hu, Yuanbin She, Meichao Li* and Zhenlu Shen*

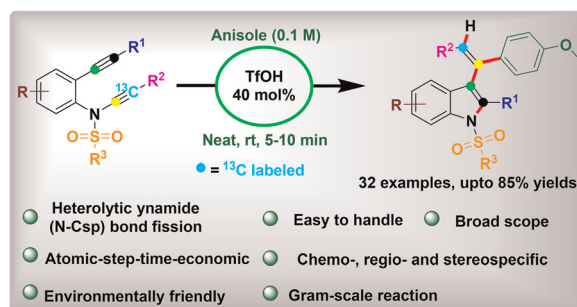


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Green and rapid acid-catalyzed ynamide skeletal rearrangement and stereospecific functionalization with anisole derivatives

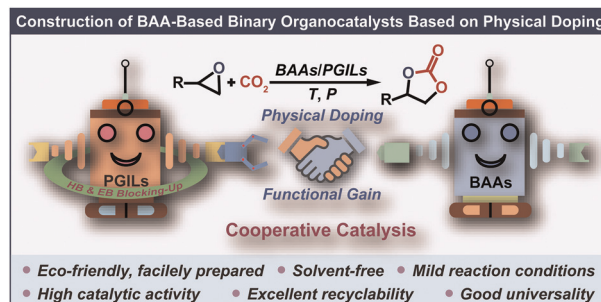
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Functionally enhanced basic amino acid-based binary organocatalysts based on physical doping for efficient coupling of CO₂ with epoxides

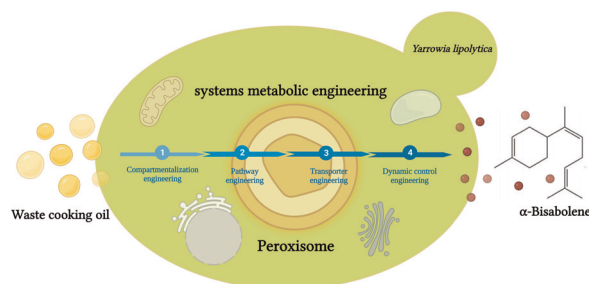
Fan Wang, Congxia Xie, Hongbing Song and Xin Jin*



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Biosynthesis of α -bisabolene from low-cost renewable feedstocks by peroxisome engineering and systems metabolic engineering of the yeast *Yarrowia lipolytica*

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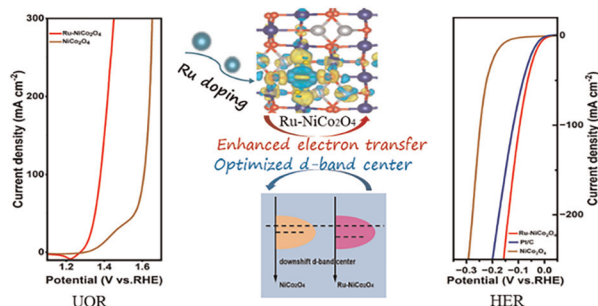


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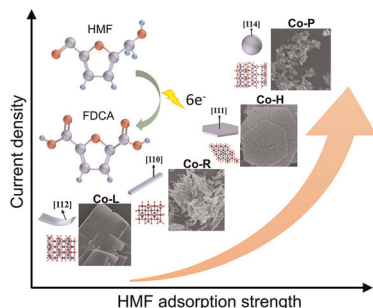
Efficient Fe₃O₄ nanoparticle catalysts for depolymerization of polyethylene terephthalate

Yoonjeong Jo, Eun Jeong Kim, Jueun Kim and Kwangjin An*

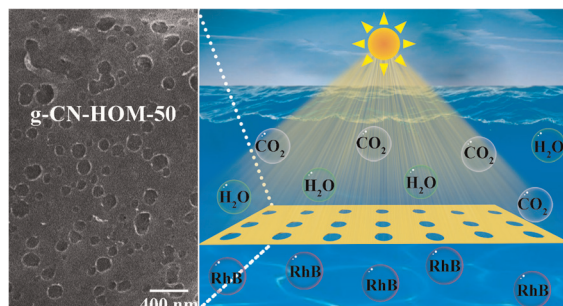




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Muhammad Humayun, Junhong Duan, Xuefei Xu,
Yanjuan Fu, Mohamed Bououdina and Chundong Wang*



Zhenchuan Zhang, Zhaohui Yang, Chenyang Wei,
Zhenghui Liu and Tiancheng Mu*



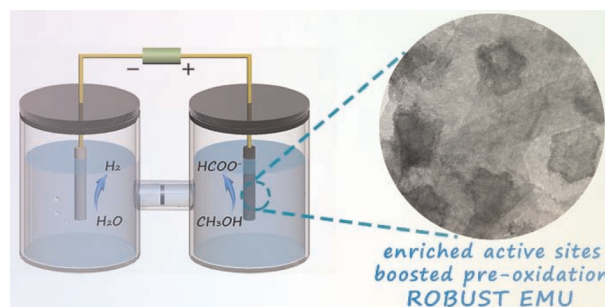
Ruxia Li, Xiaoxiang Fan, Jianqi Meng, Jie Wu,
Jinjuan Zhao, Ruifa Jin, Honglei Yang* and Shuwen Li*

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Tailoring the catalytically active sites in Co-based catalysts for electrochemical methanol upgrading to produce formate

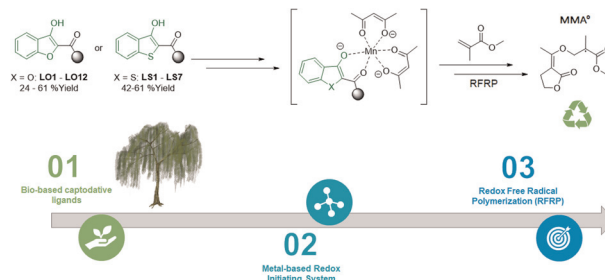
Yameng Wang, Xue Yang, Kexin Wang, Zimeng Liu, Xiaoning Sun, Jinyue Chen, Shanshan Liu, Xu Sun, Junfeng Xie* and Bo Tang*



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Bio-based captodative ligands for redox polymerization of Elium® thermoplastic composites under mild conditions

Nicolas Giacoletto, Marie Le Dot, Hizia Cherif, Fabrice Morlet-Savary, Bernadette Graff, Valérie Monnier, Didier Gigmes, Frédéric Dumur, Hamza Olleik, Marc Maresca, Pierre Gerard, Malek Nechab* and Jacques Lalevée*



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Feedstock agnostic upcycling of industrial mixed plastic from shredder residue pragmatically through a composite approach

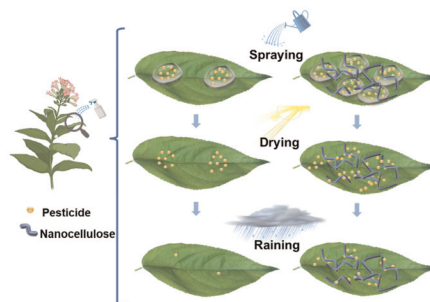
Kanjanawadee Singkronart, Andre Gaduan, Siti Rosminah Shamsuddin, Keeran Ward and Koon-Yang Lee*



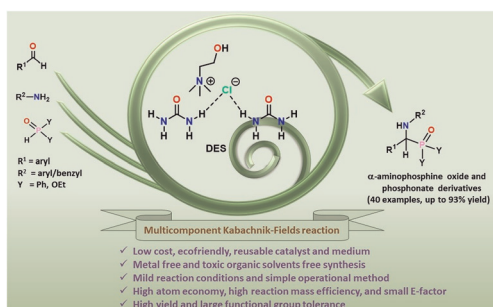
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Effectively enhancing topical delivery of agrochemicals onto plant leaves with nanocelluloses

Shangxu Jiang, Peng Li,* Li Li, Nasim Amiralian, Divya Rajah and Zhi Ping Xu*



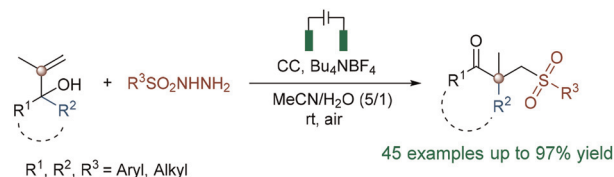
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Synthesis of α -aminophosphorous derivatives using a deep eutectic solvent (DES) in a dual role

Susmita Mandal, Rajrani Narvariya, Shiva Lall Sunar, Ishita Paul, Archana Jain* and Tarun K. Panda*

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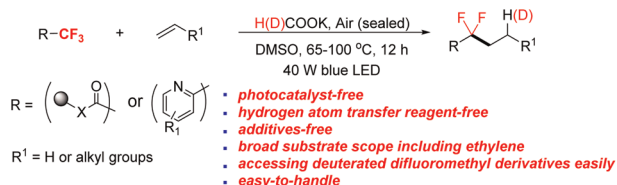


- metal- and oxidant-free
- high atom economy
- construction of quaternary C
- mild and eco-friendly
- broad substrate scope

Electrochemical synthesis of γ -keto sulfones containing a β -quaternary carbon center via 1,2-migration

Wen Xia, Yawen Yang, Xiaohui Zhang, Liangzhen Hu* and Yan Xiong*

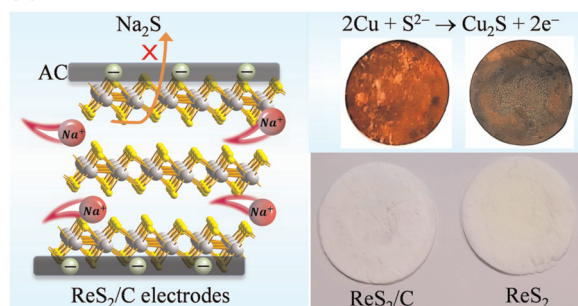
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Catalyst-free defluorinative alkylation of trifluoromethyls

Yan Huang, Yuan-Cui Wan, Yu Shao, Le-Wu Zhan, Bin-Dong Li* and Jing Hou*

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Carbon-coated ReS₂ hierarchical nanospheres to inhibit polysulfide dissolution in ether-based electrolytes for high-performance Na-ion batteries

Jun Xu,* Xuhui Zhang, Fang Cao, Zilin Mao, Junbao Jiang, Junwei Chen, Yan Zhang* and Kun Xing*

