

# Green Chemistry

Cutting-edge research for a greener sustainable future

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

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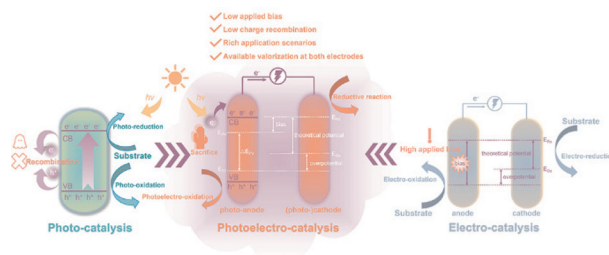
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# Green Chemistry

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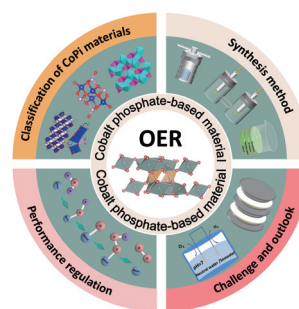


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### Research status, opportunities, and challenges of cobalt phosphate based materials as OER electrocatalysts

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

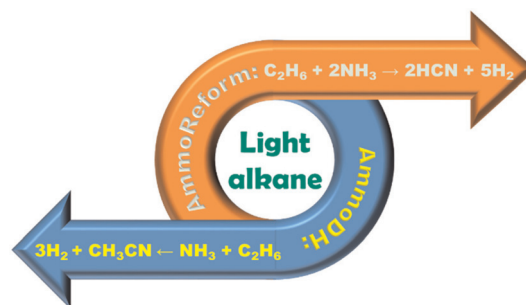


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Yizhi Xiang

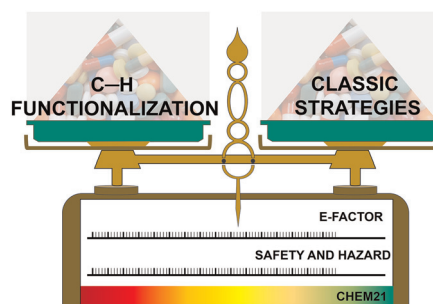


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Francesco Ferlin, Giulia Brufani, Gabriele Rossini and Luigi Vaccaro\*



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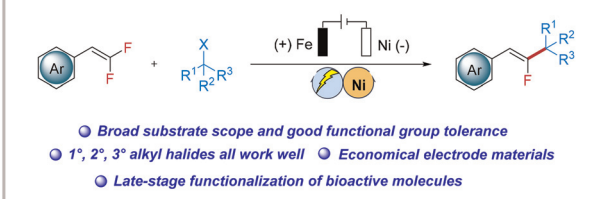
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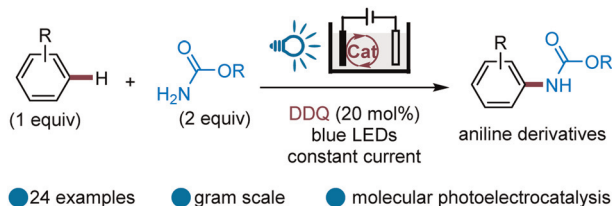
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Yin Liu, Pengfei Li, Jun Tan, Guangsheng Kou, Dengke Ma\* and Youai Qiu\*

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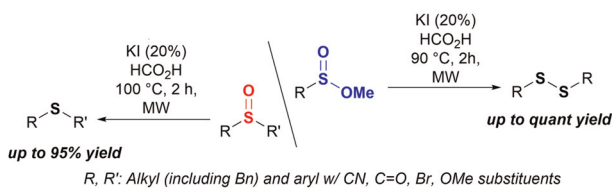


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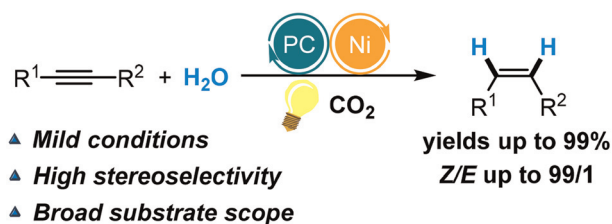


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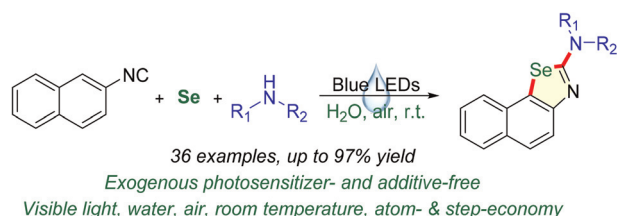


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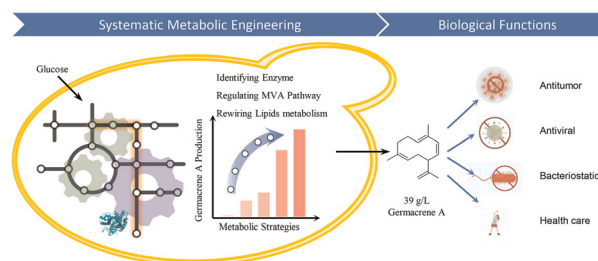
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**Reprogramming the metabolism of oleaginous yeast for sustainably biosynthesizing the anticarcinogen precursor germacrene A**

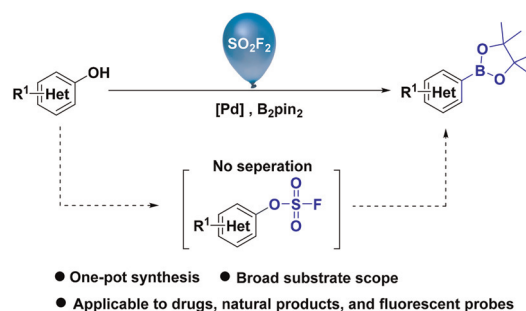
Qi Liu, Ge Zhang, Liqiu Su, Pi Liu, Shiru Jia, Qinhong Wang and Zongjie Dai\*



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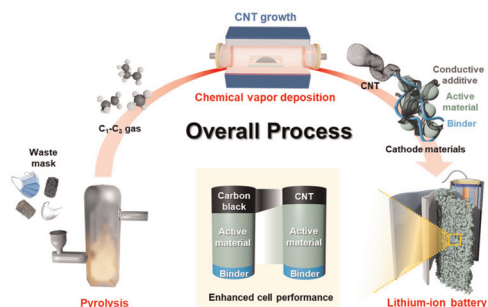
Zhengjun Chen, Yan Liu, Chunhua Zeng, Changyue Ren, Hongyu Li, Rajenahally V. Jagadeesh,\* Zeli Yuan\* and Xinmin Li\*





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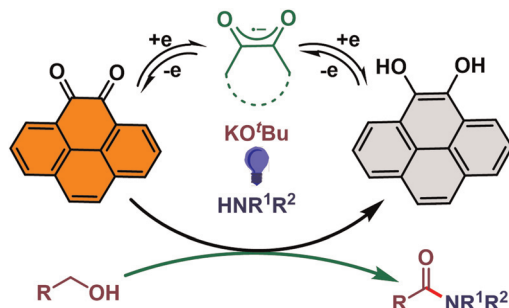
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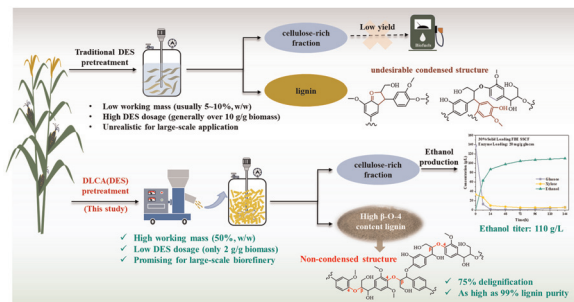
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### Organophotocatalytic dehydrogenative preparation of amides directly from alcohols

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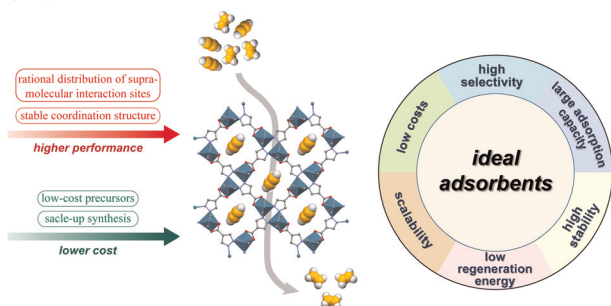
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Hengcong Huang, Yifan Gu, Luyao Wang, Tao Jia, Susumu Kitagawa and Fengting Li\*

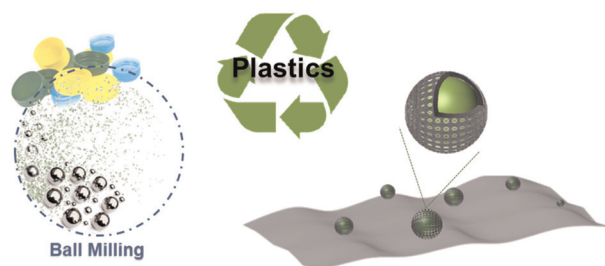


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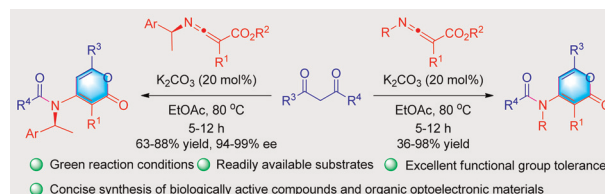
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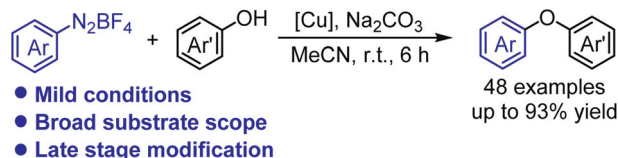
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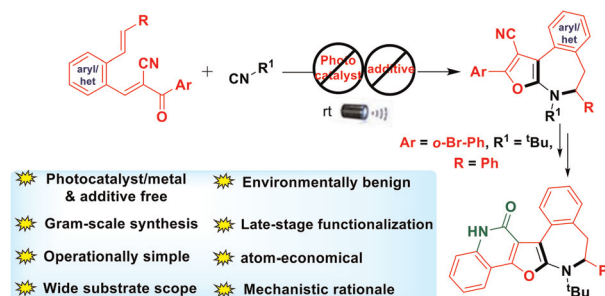
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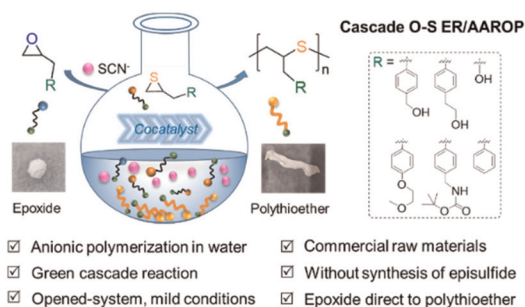
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Babasaheb Sopan Gore,\* Chiao-Ying Kuo and Jeh-Jeng Wang\*



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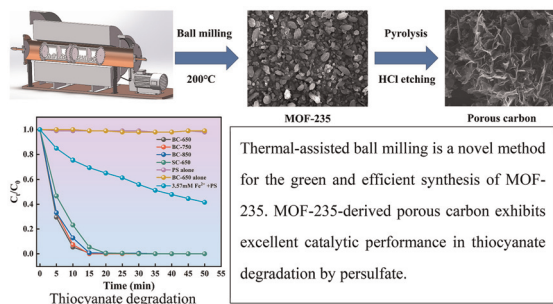
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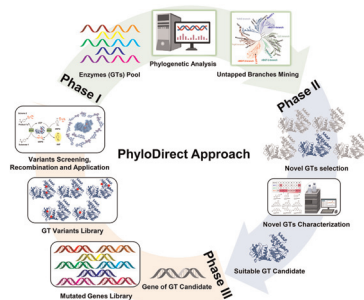
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Yang Yang, Binchuan Li, Daxue Fu, Jianshe Chen, Shuang Cui, Xiaocai He, Kuiren Liu, Shicheng Wei, Da Li and Qing Han\*

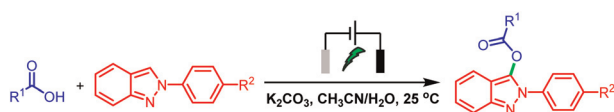
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### A phylogeny-based directed evolution approach to boost the synthetic applications of glycosyltransferases

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(sp<sup>2</sup>)-O coupling

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



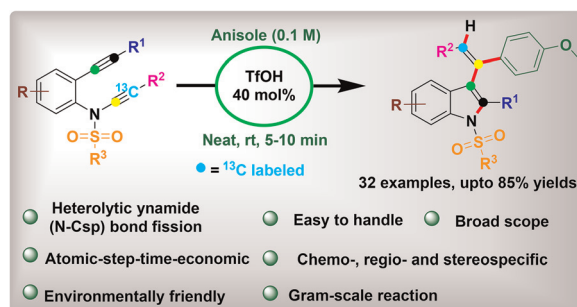


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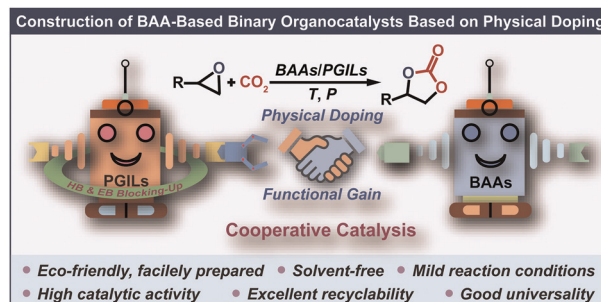
Mohana Reddy Mutra,\* T. L. Chandana, Yun-Jou Wang and Jeh-Jeng Wang\*



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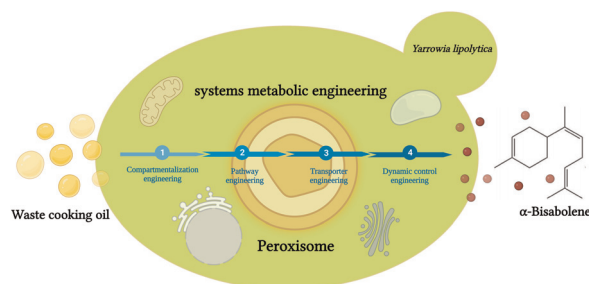
Fan Wang, Congxia Xie, Hongbing Song and Xin Jin\*



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

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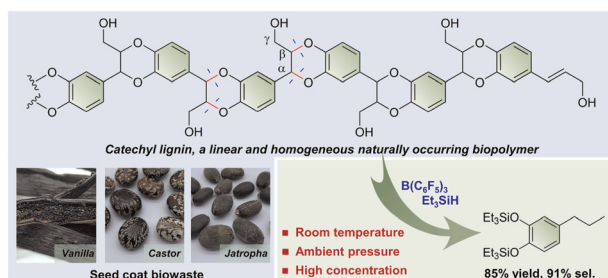
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### Efficient Fe<sub>3</sub>O<sub>4</sub> nanoparticle catalysts for depolymerization of polyethylene terephthalate

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



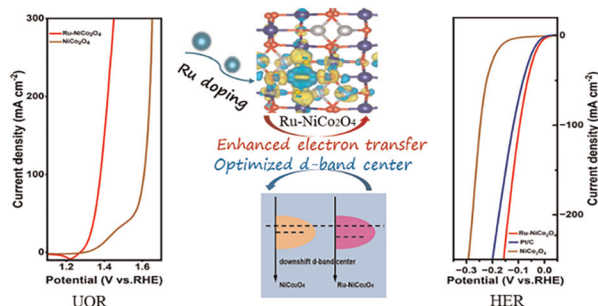
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## Organoborane-catalysed reductive depolymerisation of catechyl lignin under ambient conditions

Shihao Su, Fan-shu Cao, Shuizhong Wang,\*  
Qingru Shen, Gen Luo,\* Qiang Lu and Guoyong Song\*

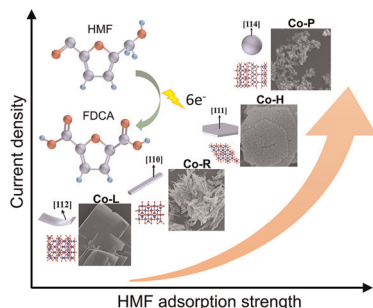
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## Elaborately tailored NiCo<sub>2</sub>O<sub>4</sub> for highly efficient overall water splitting and urea electrolysis

Yamei Wang, Lanli Chen, Huaming Zhang,\*  
Muhammad Humayun, Junhong Duan, Xuefei Xu,  
Yanjuan Fu, Mohamed Bououdina and Chundong Wang\*

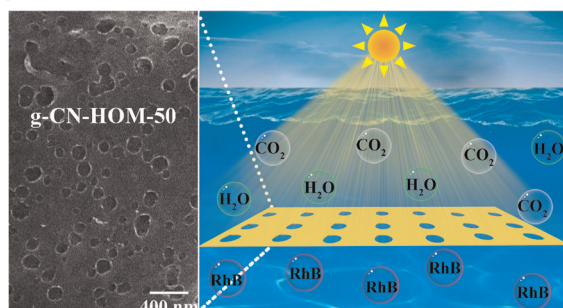
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# Facet-dependent electrocatalytic oxidation activity of Co<sub>3</sub>O<sub>4</sub> nanocrystals for 5-hydroxymethylfurfural

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

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## Controllable construction of graphitic carbon nitride with highly-ordered macropores for boosting photodegradation

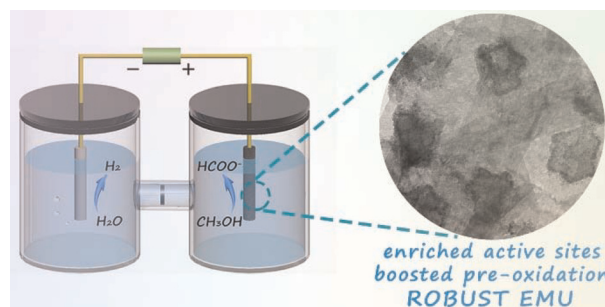
Ruxia Li, Xiaoxiang Fan, Jianqi Meng, Jie Wu,  
Jinjuan Zhao, Ruifa Jin, Honglei Yang\* and Shuwen Li\*

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

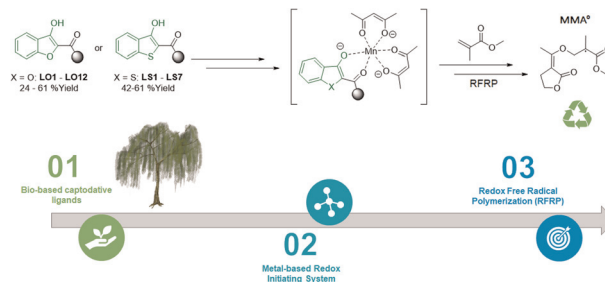
Yameng Wang, Xue Yang, Kexin Wang, Zimeng Liu, Xiaoning Sun, Jinyue Chen, Shanshan Liu, Xu Sun, Junfeng Xie\* and Bo Tang\*



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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

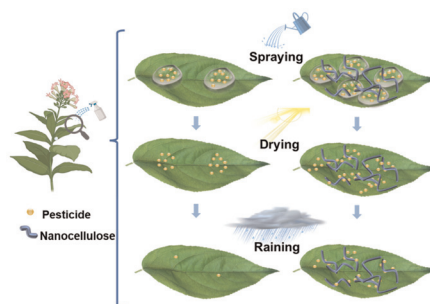
Kanjanawadee Singkronart, Andre Gaduan, Siti Rosminah Shamsuddin, Keeran Ward and Koon-Yang Lee\*



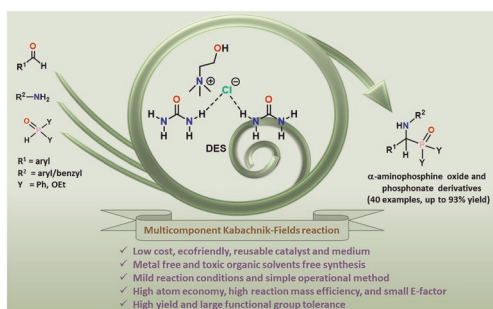
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### Effectively enhancing topical delivery of agrochemicals onto plant leaves with nanocelluloses

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



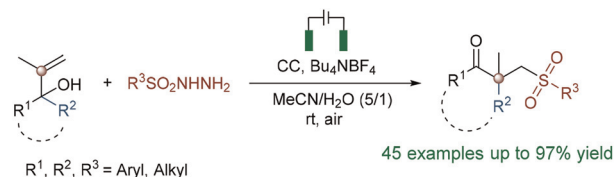
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### Synthesis of α-aminophosphorous derivatives using a deep eutectic solvent (DES) in a dual role

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

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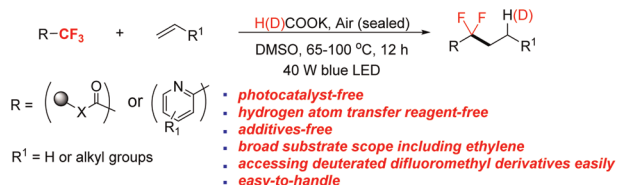


- metal- and oxidant-free
- mild and eco-friendly
- high atom economy
- broad substrate scope
- construction of quaternary C

### 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\*

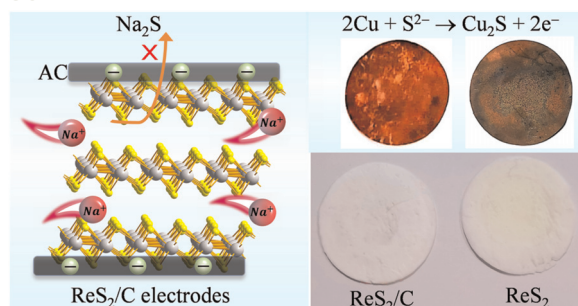
8280



### Catalyst-free defluorinative alkylation of trifluoromethyls

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

8286



### 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\*

