

# Green Chemistry

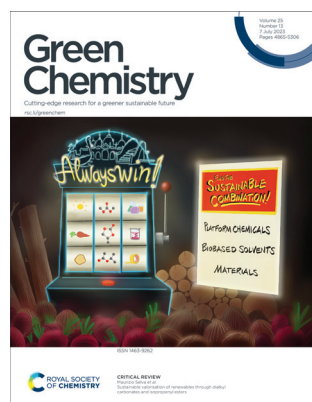
Cutting-edge research for a greener sustainable future

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pp. 4878–4911.

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**Inside cover**  
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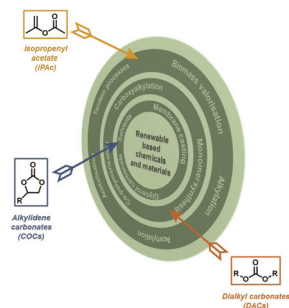
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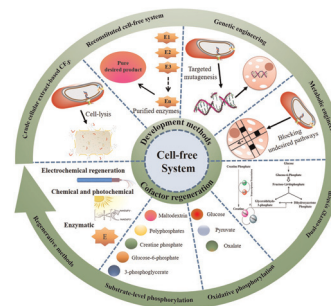
Giulia Fiorani, Alvise Perosa and Maurizio Selva\*



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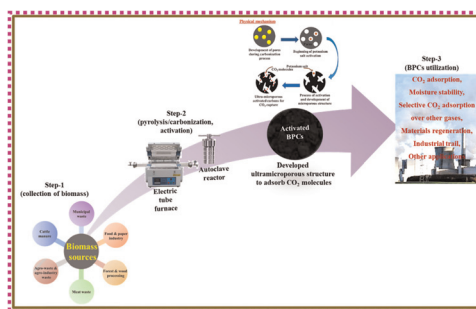


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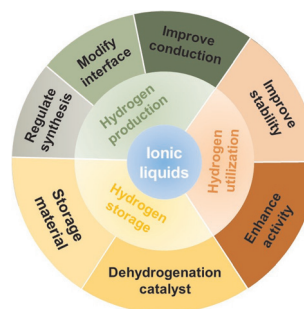


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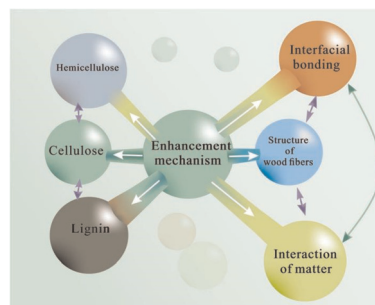
Yanrong Liu, Jiayao Cui, Hao Wang, Ke Wang, Yuan Tian, Xiaoyi Xue, Yueyang Qiao, Xiaoyan Ji and Suojiang Zhang\*



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### Lignin-enhanced wet strength of cellulose-based materials: a sustainable approach

Haohe Huang, Chenglong Xu, Xuhao Zhu, Bo Li and Chongxing Huang\*

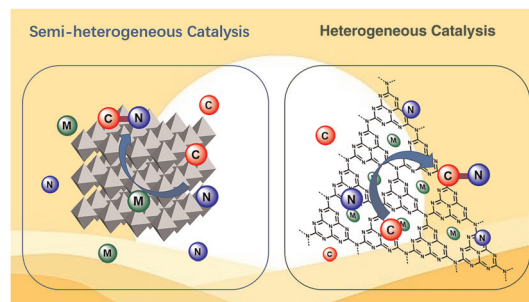


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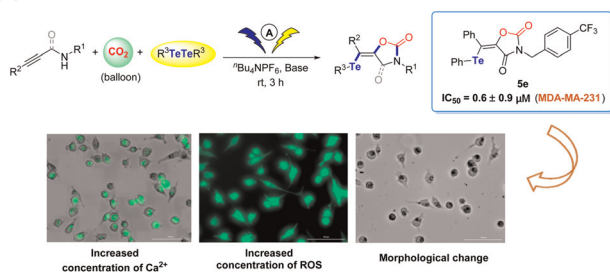
### Recent advances in the heterogeneous photochemical synthesis of C–N bonds

Jinming Wang, Yichang Liu, Xupeng Zong, Aiwen Lei\* and Zaicheng Sun\*



## COMMUNICATIONS

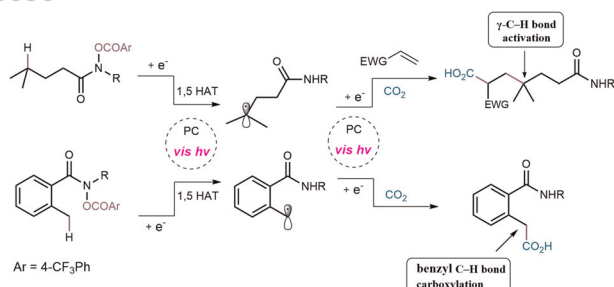
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### Electrocatalytic three-component reactions: synthesis of tellurium-containing oxazolidinone for anticancer agents

Xue-Qi Zhou, Hai-Tao Tang, Fei-Hu Cui,\* Ying Liang,\*  
Shu-Hui Li and Ying-Ming Pan\*

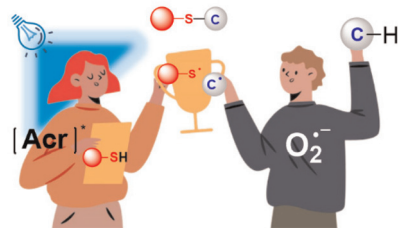
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### Photocarboxylation of remote C–H bonds through nitrogen-centred radical 1,5-hydrogen atom transfer

Wenke Li, Beiqi Sun, Lei Zhang and Fanyang Mo\*

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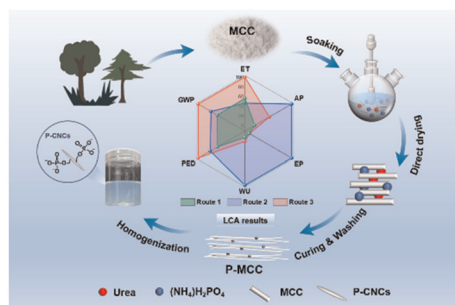
- Excellent atom economy
- Metal and additive free
- Superoxide anion as Traceless HAT
- Mild conditions
- Water and air tolerance

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Gongbo Liu, Nan Zheng,\* Xuelun Duan, Xinhao Sun and Wangze Song\*

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Xue Gao, Lei Zhang, Mei Cui,\* Renliang Huang, Wei Qi and Rongxin Su\*

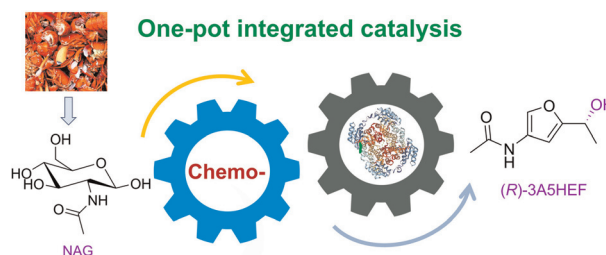


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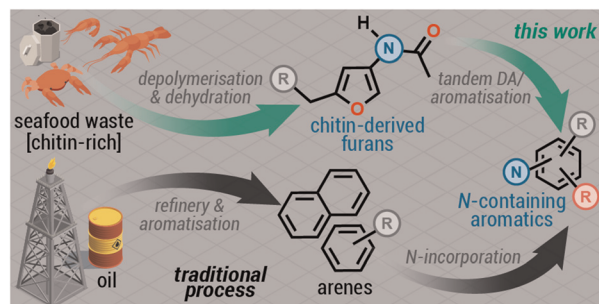
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### Nitrogenated aromatics from chitin

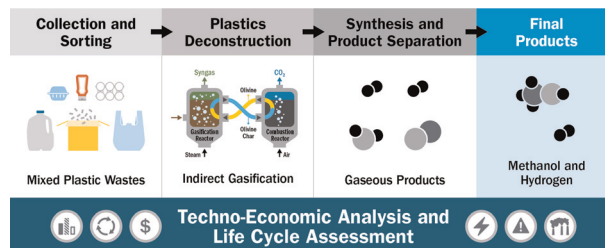
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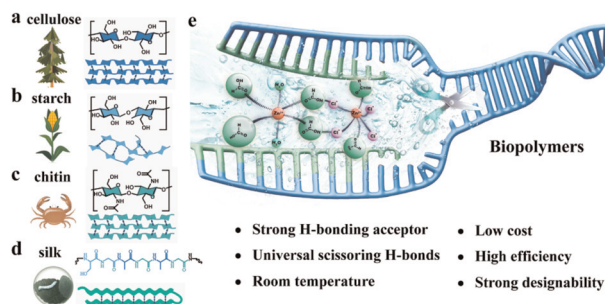
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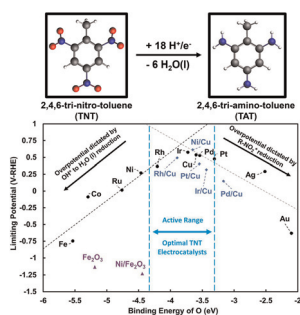
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Zhihan Tong, Suqing Zeng, Hongying Tang, Wen Wang, Yaxu Sun, Qinqin Xia\* and Haipeng Yu\*





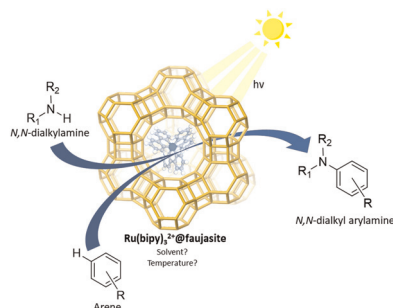
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## Investigating the electrocatalytic reduction of 2,4,6-tri-nitro-toluene (TNT) using density functional theory methods

Andrew Jark-Wah Wong, Joshua Lee Miller, Brandon Perdue and Michael John Janik\*

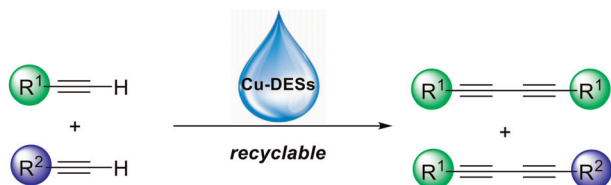
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## A direct pathway for the coupling of arenes and alkylamines via a heterogeneous zeolite-based photocatalyst

Vincent Lemmens, Kwinten Janssens, Jorge Gascon and Dirk E. De Vos\*

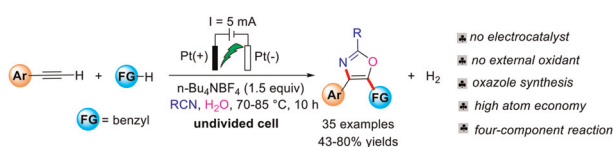
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Weixu Lu, Xiaoqiang Yu\* and Ming Bao

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## Electrochemical oxidation-induced benzylic C(sp<sup>3</sup>)-H functionalization towards the atom-economic synthesis of oxazole heterocycles

Na Yang, Anni Li, Hui Gao, Li-Mei Liao, Yu-Ping Yang, Pei-Long Wang\* and Hongji Li\*

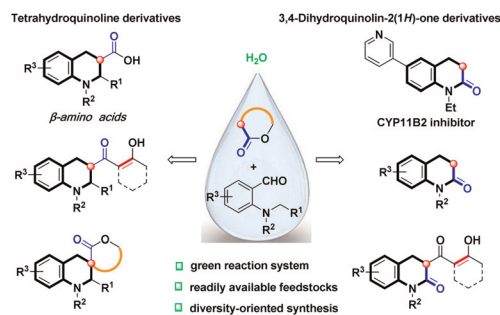


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### Divergent synthesis of nitrogen heterocycles via H<sub>2</sub>O-mediated hydride transfer reactions

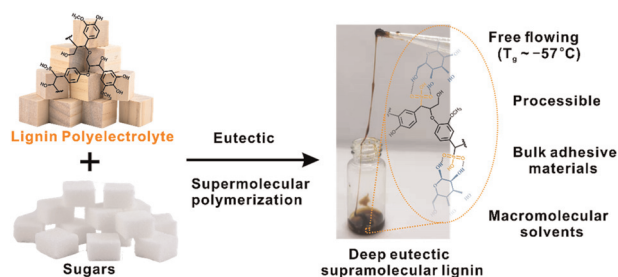
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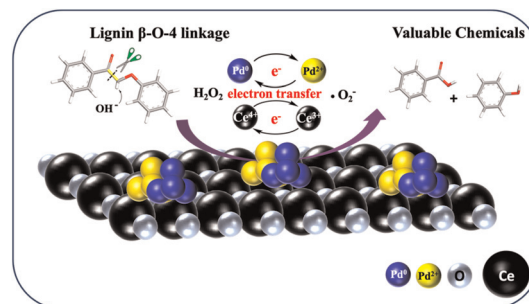
Qiaoling Liu, Yang Wang, Hairong Wang, Zhenhua Su, Xiang Hao\* and Feng Peng\*



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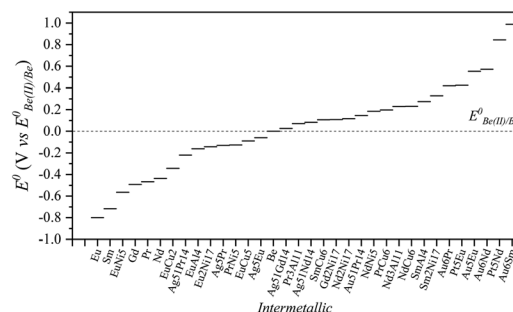
Yuzhen Hu, Yanbin Cui, Shuoxiao Zhao, Xuelai Zhao, Xiaohong Hu, Zhenlong Song, Wei Fan\* and Qi Zhang\*



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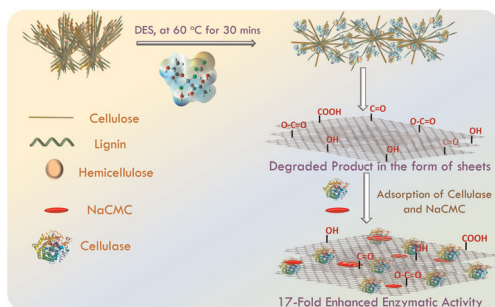
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Yong Zuo, Chang-Feng She, Feng Jiang, Wei Huang\* and Yu Gong



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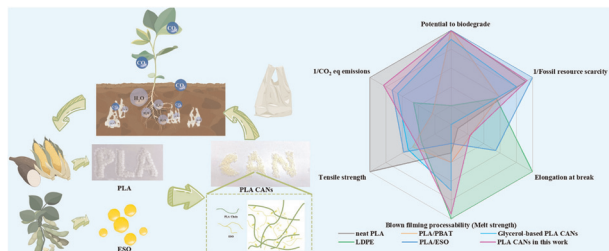
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### Sustainable preparation of oxidized graphitic material from wheat straw using a deep eutectic solvent for superactivity of cellulase

Harmandeep Kaur, Manpreet Singh, Kuldeep Singh, Arvind Kumar and Tejwant Singh Kang\*

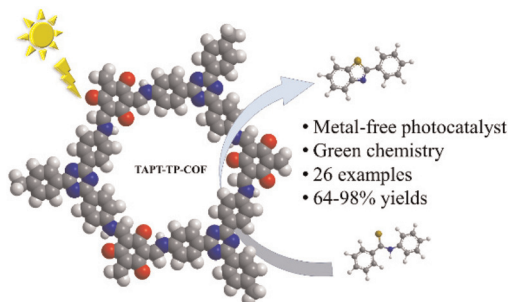
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Yong-Bo Liu, Zhao Xu, Zheng-Min Zhang, Rui-Ying Bao, \* Ming-Bo Yang and Wei Yang\*

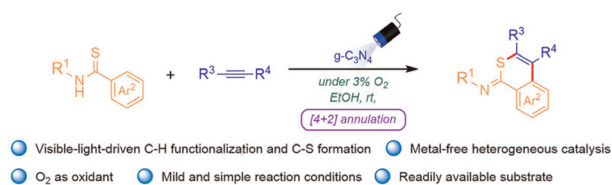
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Ziqi Liu, Zhicheng Chen, Huixin Tong, Mengmeng Ji and Wenyi Chu\*

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### Heterogeneous visible-light promoted dehydrogenative [4 + 2] annulation of benzothioamides and alkynes under aerobic conditions

Yanmin Guo, Rong Chang, Zhen Fu, Cong-Ying Zhou\* and Zhen Guo\*



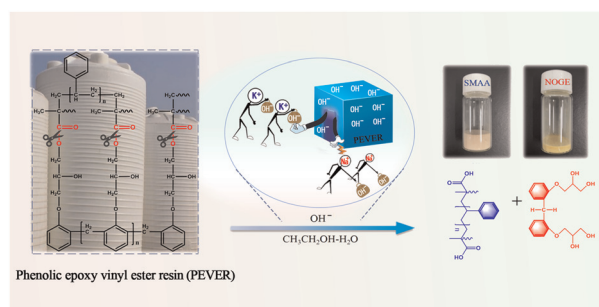


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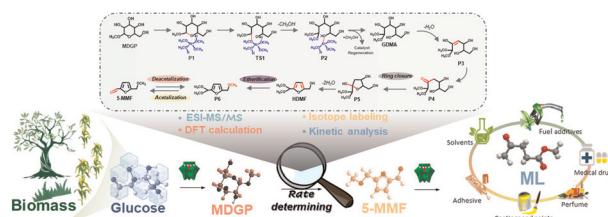
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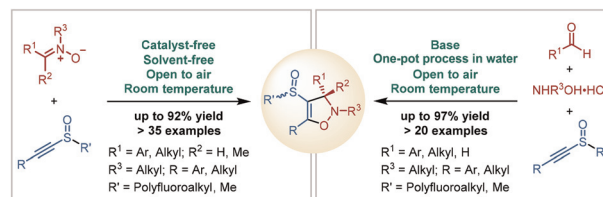
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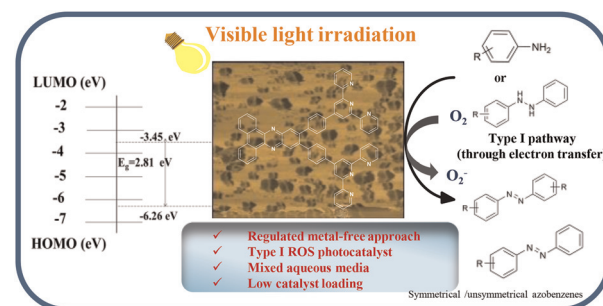
Tian-Ming Liao, Wen-Jiang Ma, Yu-Ning Gao, Ming Bian, Min Jiang, Jin-Tao Liu, Hui-Yu Chen\* and Zhen-Jiang Liu\*



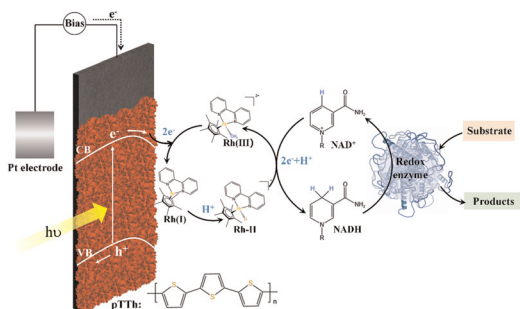
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### Type I strong acceptor–weak acceptor photosensitizing assemblies for the regulated aerobic oxidative coupling of anilines

Lovjot Kaur, Manoj Kumar and Vandana Bhalla\*



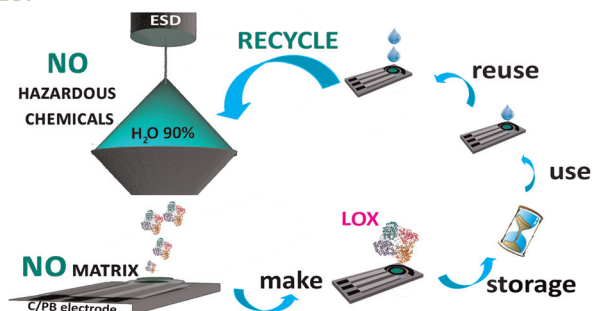
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Nanxin Li, Jia You, Lanlan Huang, Haoran Zhang, Xianlong Wang, Lihua He, Shiwei Lin,\* Bingging Zhang\* and Chunli Gong

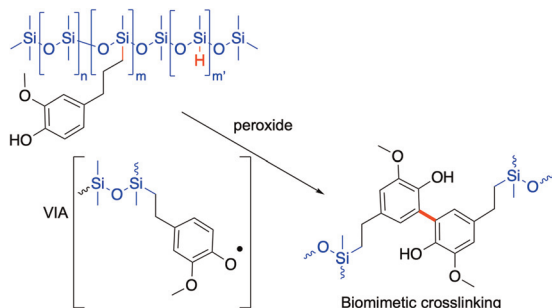
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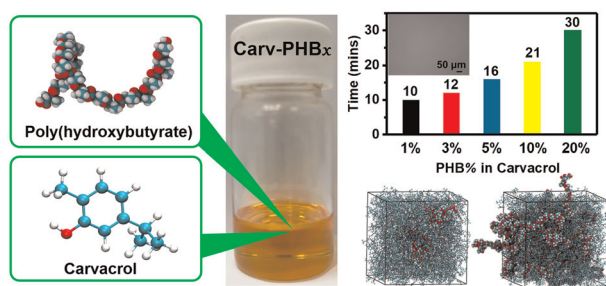
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### Learning from the trees: biomimetic crosslinking of silicones by phenolic coupling

Angela Yayun Li, Miguel Melendez-Zamudio, Akop Yepremyan and Michael A. Brook\*

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Joseph Kinyanjui Muiruri, Jayven Chee Chuan Yeo, Tang Yuanting Karen, Ke Li, Enyi Ye, Xian Jun Loh\* and Zibiao Li\*

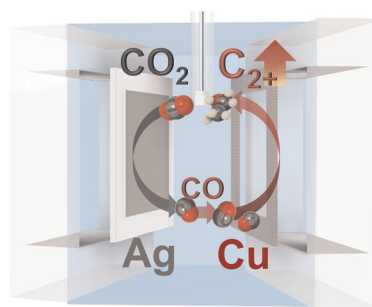


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**Bipotentiostatic tandem electrocatalysis of the CO<sub>2</sub> reduction reaction yielding C<sub>2+</sub> fuels**

Joo Yeon Kim, Yeonsu Kim, C. Hyun Ryu and Hyun S. Ahn\*



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**An efficient biocatalytic oxidative dehydroaromatization approach for the construction of quinolines enabled by monoamine oxidase with molecular oxygen**

Huanhuan Jin, Shuyun Ju,\* Haoran Yu, Lirong Yang, Wenlong Zheng and Jianping Wu\*

