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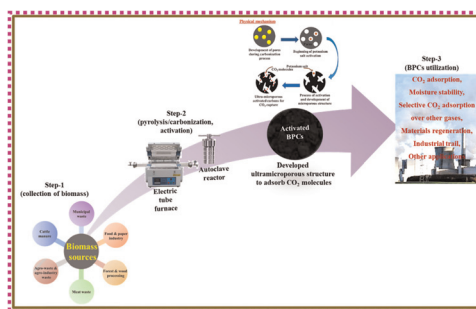


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### Towards a sustainable conversion of biomass/biowaste to porous carbons for CO<sub>2</sub> adsorption: recent advances, current challenges, and future directions

Ghazanfar Nazir,\* Adeela Rehman,\* Sajjad Hussain, Qasim Mahmood, Mehdi Fteiti, Kwang Heo, Muhammad Ikram and Muhammad Aizaz Ud Din

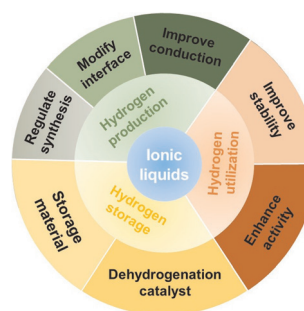


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### Ionic liquids as a new cornerstone to support hydrogen energy

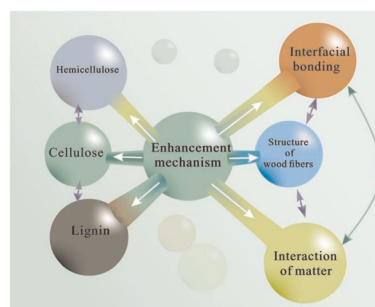
Yanrong Liu, Jiayao Cui, Hao Wang, Ke Wang, Yuan Tian, Xiaoyi Xue, Yueyang Qiao, Xiaoyan Ji and Suojiang Zhang\*



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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\*

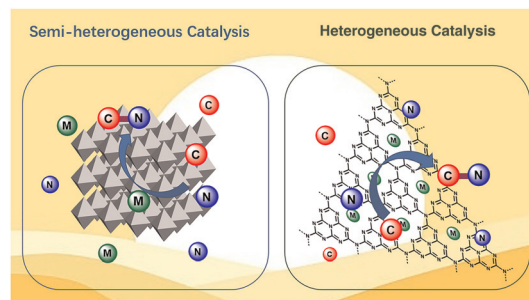


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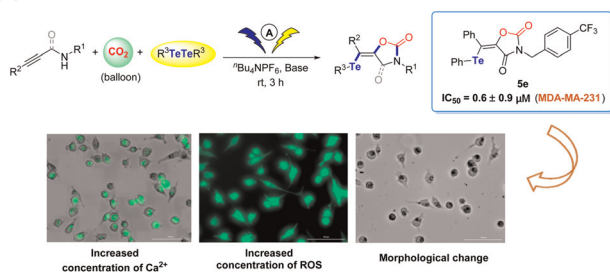
### Recent advances in the heterogeneous photochemical synthesis of C–N bonds

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



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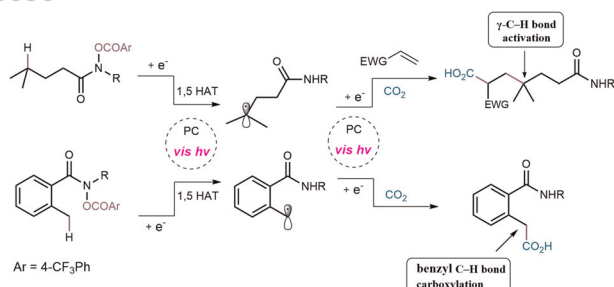
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### Electrocatalytic three-component reactions: synthesis of tellurium-containing oxazolidinone for anticancer agents

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

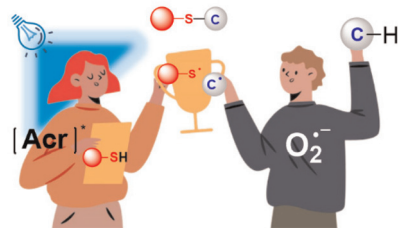
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### Photocarboxylation of remote C–H bonds through nitrogen-centred radical 1,5-hydrogen atom transfer

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

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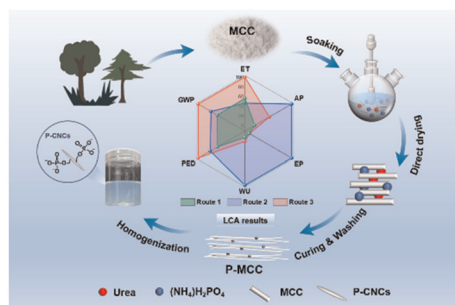
- Excellent atom economy
- Metal and additive free
- Superoxide anion as Traceless HAT
- Mild conditions
- Water and air tolerance

### Visible light-induced $\text{C}(\text{sp}^3)\text{--S}$ bond formation

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

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### Pre-phosphorylation for facile production of phosphorylated cellulose nanocrystals with high charge content: an optimised design and life cycle assessment

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

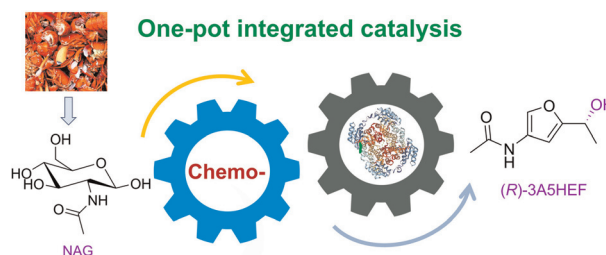


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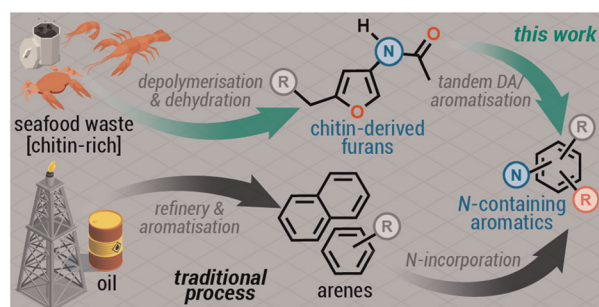
Ya-Cheng Hao, Min-Hua Zong, Qi Chen\* and Ning Li\*



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### Nitrogenated aromatics from chitin

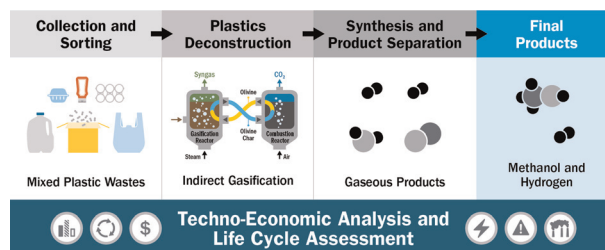
Camila Souza Santos, Renan Rodini Mattioli, Julia Soares Baptista, Vitor H. Menezes da Silva, Duncan L. Browne and Julio Cezar Pastre\*



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### Techno-economic analysis and life cycle assessment of mixed plastic waste gasification for production of methanol and hydrogen

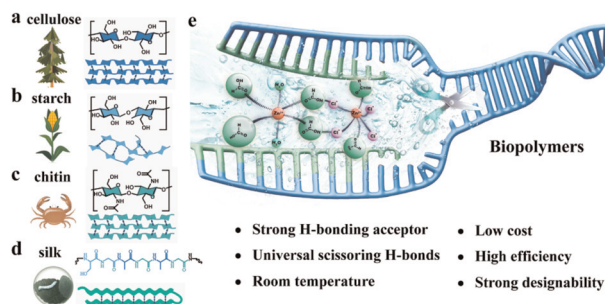
Shaik Afzal, Avantika Singh,\* Scott R. Nicholson, Taylor Uekert, Jason S. DesVeaux, Eric C. D. Tan, Abhijit Dutta, Alberta C. Carpenter, Robert M. Baldwin and Gregg T. Beckham\*



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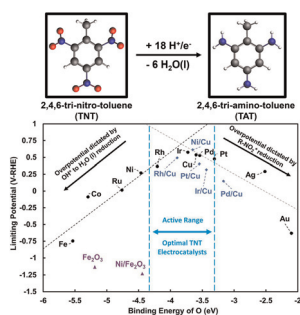
### A room temperature dissolution solvent and its mechanism for natural biopolymers: hydrogen bonding interaction investigation

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





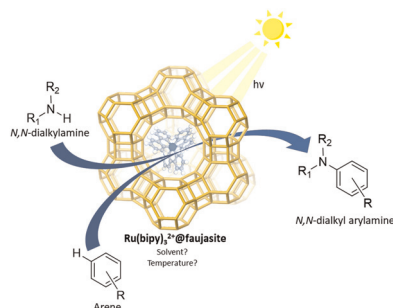
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## Investigating the electrocatalytic reduction of 2,4,6-tri-nitro-toluene (TNT) using density functional theory methods

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

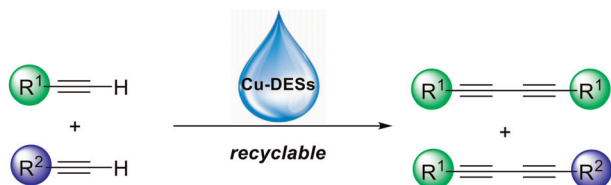
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## A direct pathway for the coupling of arenes and alkylamines via a heterogeneous zeolite-based photocatalyst

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

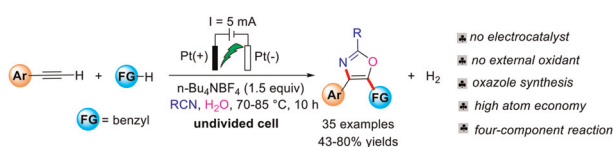
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Weixu Lu, Xiaoqiang Yu\* and Ming Bao

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

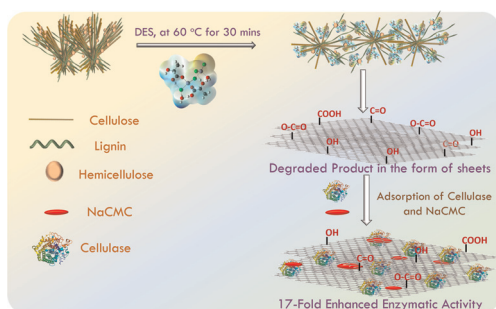
Na Yang, Anni Li, Hui Gao, Li-Mei Liao, Yu-Ping Yang, Pei-Long Wang\* and Hongji Li\*





## PAPERS

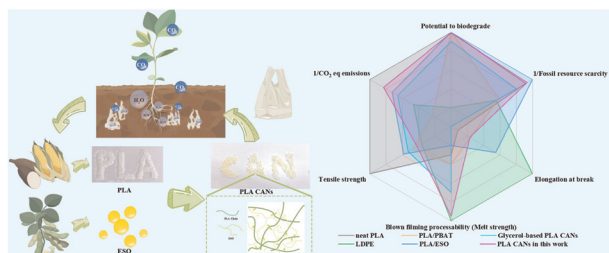
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### Sustainable preparation of oxidized graphitic material from wheat straw using a deep eutectic solvent for superactivity of cellulase

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

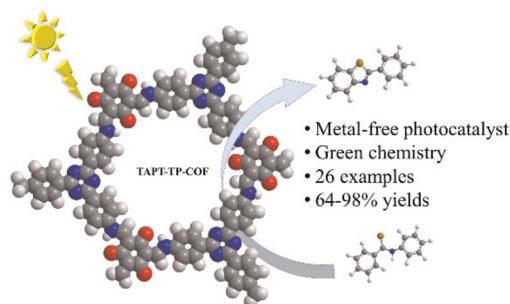
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### Blowing tough polylactide film enabled by the *in situ* construction of covalent adaptive networks with epoxidized soybean oil as dynamic crosslinks

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

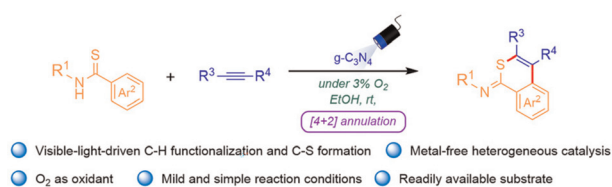
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Ziqi Liu, Zhicheng Chen, Huixin Tong, Mengmeng Ji and Wenyi Chu\*

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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\*



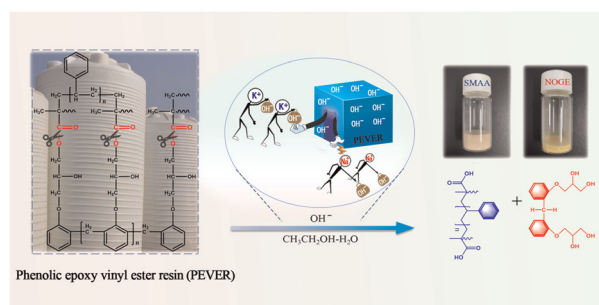


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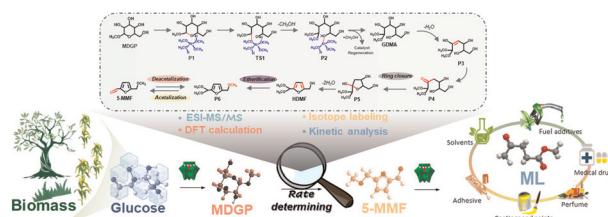
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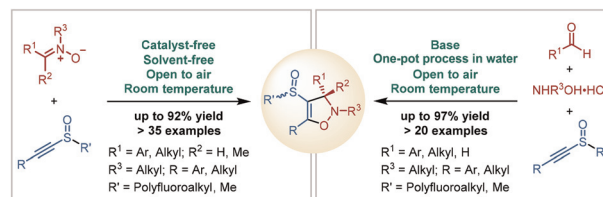
Yuxuan Zhang, Zhaoyang Ju, Xueli Chen, Qian Lyu, Jiaqi Mei, Lujia Han, Dong Liu and Weihua Xiao\*



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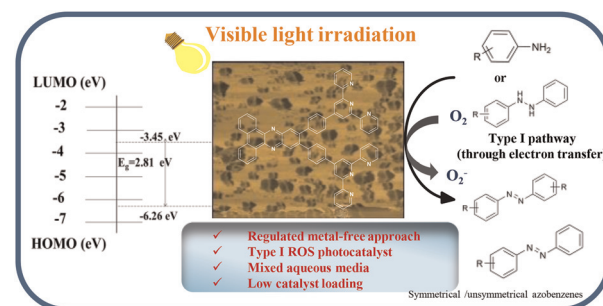
Tian-Ming Liao, Wen-Jiang Ma, Yu-Ning Gao, Ming Bian, Min Jiang, Jin-Tao Liu, Hui-Yu Chen\* and Zhen-Jiang Liu\*



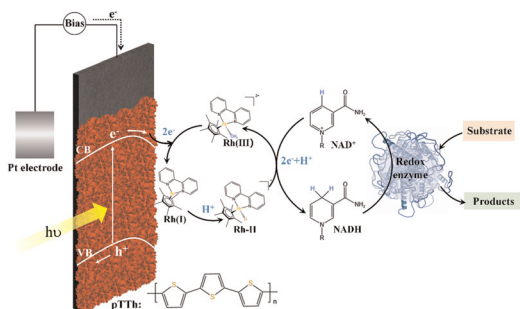
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### Type I strong acceptor–weak acceptor photosensitizing assemblies for the regulated aerobic oxidative coupling of anilines

Lovjot Kaur, Manoj Kumar and Vandana Bhalla\*



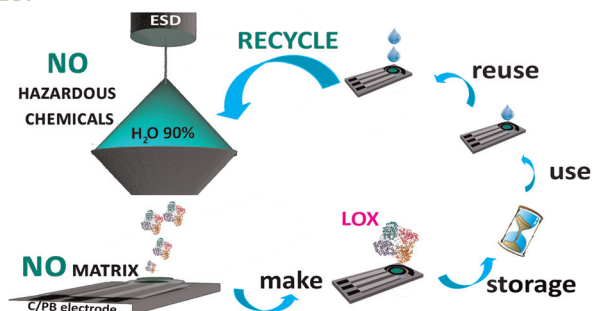
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Nanxin Li, Jia You, Lanlan Huang, Haoran Zhang, Xianlong Wang, Lihua He, Shiwei Lin,\* Bingging Zhang\* and Chunli Gong

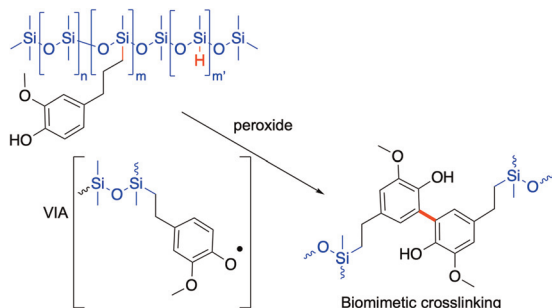
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Mattea Carmen Castrovilli,\* Viviana Scognamiglio, Emanuela Tempesta, Jacopo Chiarinelli, Mariantonietta Parracino, Valeria Frisulli, Maria Teresa Giardi, Lorenzo Avaldi, Danae Rossi and Antonella Cartoni

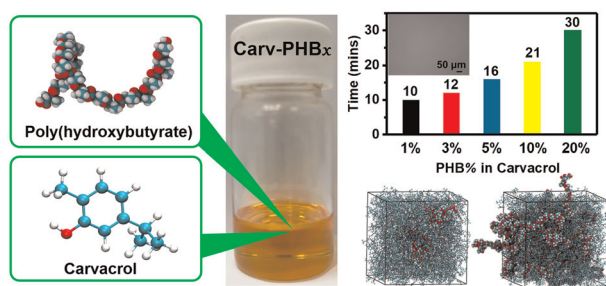
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Angela Yayun Li, Miguel Melendez-Zamudio, Akop Yepremyan and Michael A. Brook\*

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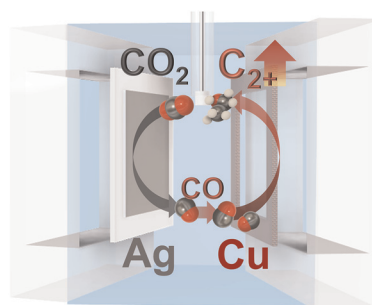
Joseph Kinyanjui Muiruri, Jayven Chee Chuan Yeo, Tang Yuanting Karen, Ke Li, Enyi Ye, Xian Jun Loh\* and Zibiao Li\*



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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\*

