

Green Chemistry

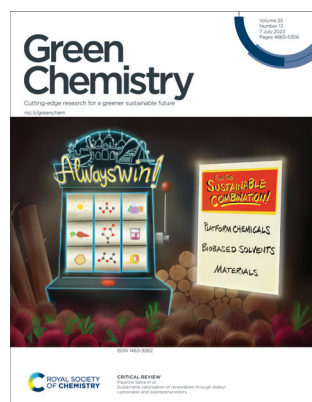
Cutting-edge research for a greener sustainable future

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See Maurizio Selva *et al.*,
pp. 4878–4911.

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Rongxin Su *et al.*,
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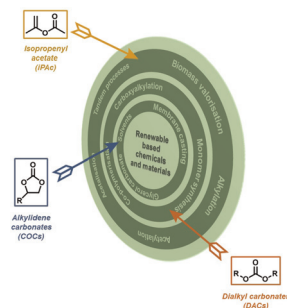
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CRITICAL REVIEWS

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Sustainable valorisation of renewables through dialkyl carbonates and isopropenyl esters

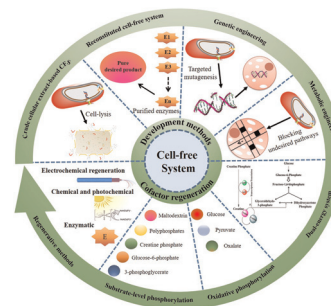
Giulia Fiorani, Alvise Perosa and Maurizio Selva*



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Cell-free systems for biosynthesis: towards a sustainable and economical approach

Muhammad Wajid Ullah, Sehrish Manan, Mazhar Ul-Islam, Waleed Ahmad Khattak, Khalid Ali Khan, Jun Liu, Guang Yang* and Jianzhong Sun*



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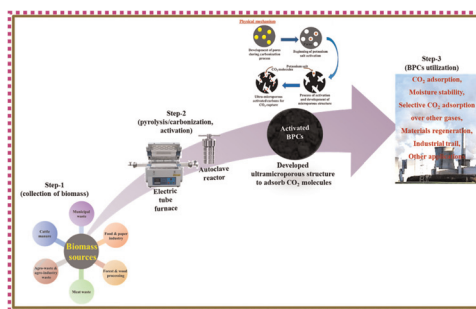


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Towards a sustainable conversion of biomass/biowaste to porous carbons for CO₂ adsorption: recent advances, current challenges, and future directions

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

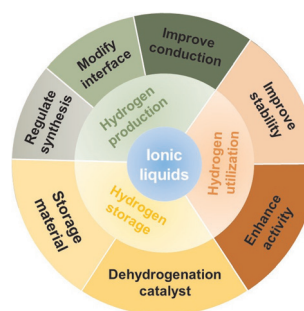


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Ionic liquids as a new cornerstone to support hydrogen energy

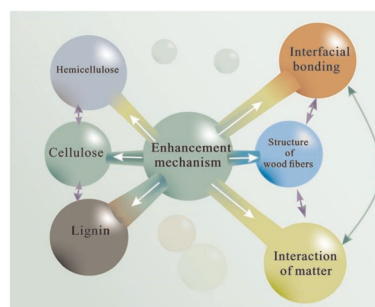
Yanrong Liu, Jiayao Cui, Hao Wang, Ke Wang, Yuan Tian, Xiaoyi Xue, Yueyang Qiao, Xiaoyan Ji and Suojiang Zhang*



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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*

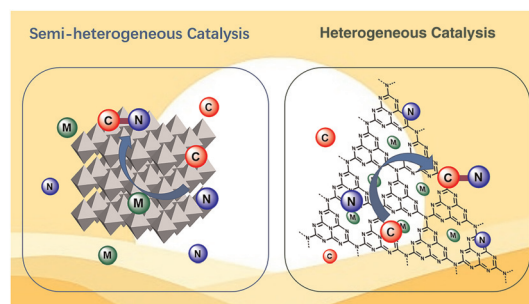


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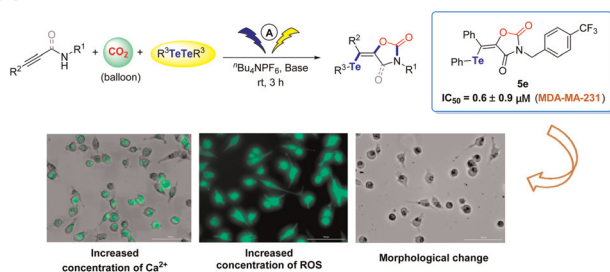
Recent advances in the heterogeneous photochemical synthesis of C–N bonds

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



COMMUNICATIONS

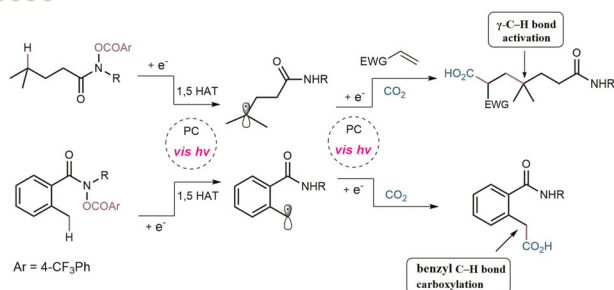
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Electrocatalytic three-component reactions: synthesis of tellurium-containing oxazolidinone for anticancer agents

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

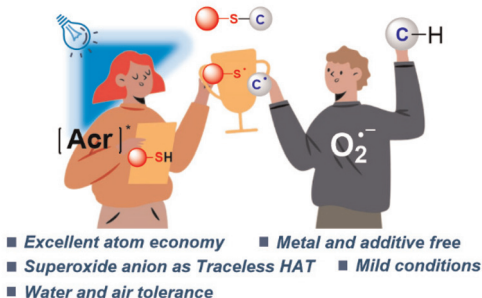
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Photocarboxylation of remote C–H bonds through nitrogen-centred radical 1,5-hydrogen atom transfer

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

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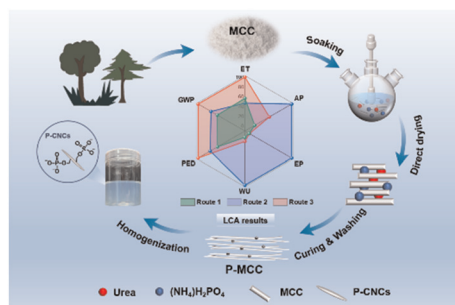


Visible light-induced C(sp³)–S bond formation

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*

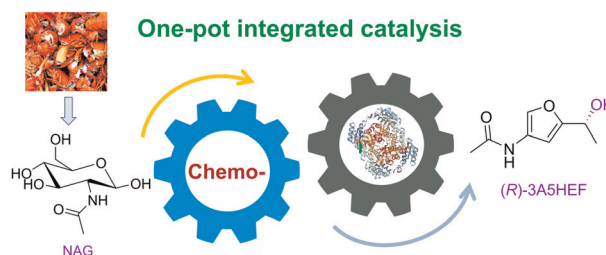


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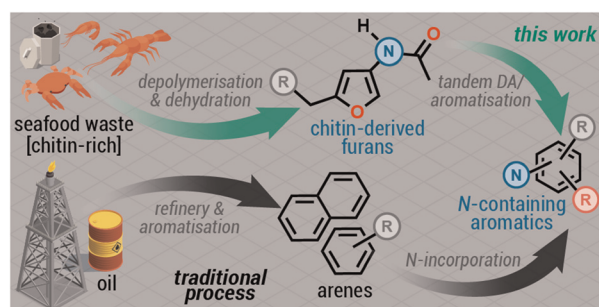
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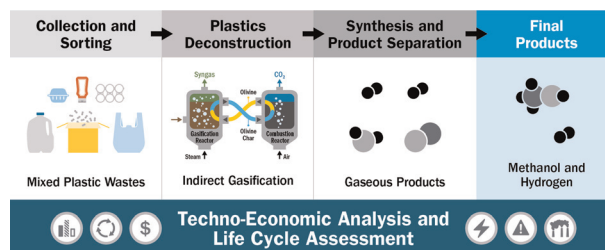
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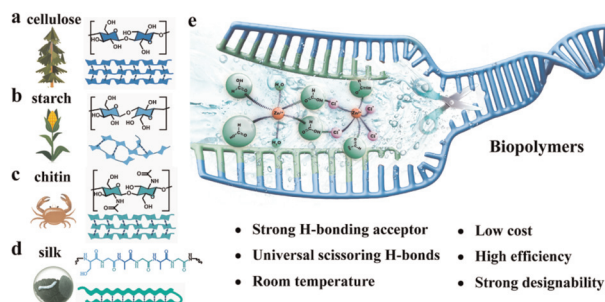
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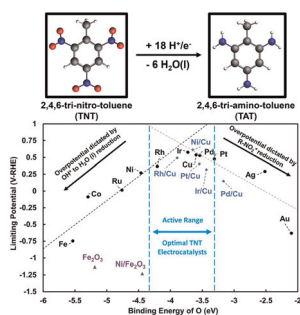
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A room temperature dissolution solvent and its mechanism for natural biopolymers: hydrogen bonding interaction investigation

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



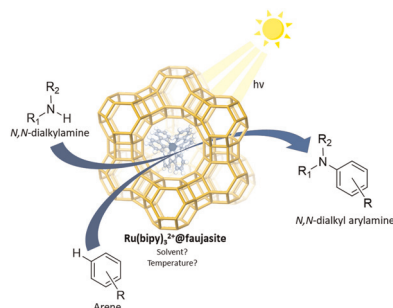
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Investigating the electrocatalytic reduction of 2,4,6-tri-nitro-toluene (TNT) using density functional theory methods

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

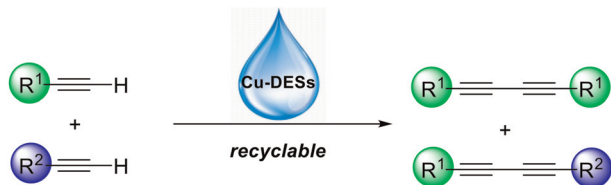
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A direct pathway for the coupling of arenes and alkylamines via a heterogeneous zeolite-based photocatalyst

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

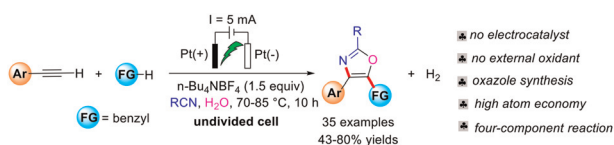
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Cu-Based ternary deep eutectic solvents for homo- and cross-coupling reactions of terminal alkynes

Weixu Lu, Xiaoqiang Yu* and Ming Bao

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

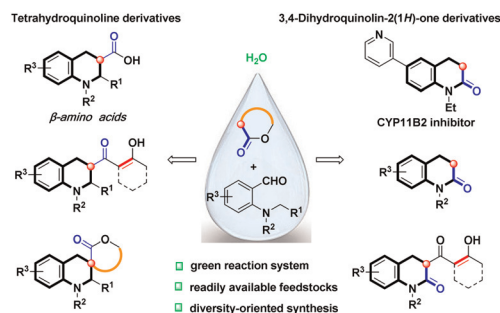


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Divergent synthesis of nitrogen heterocycles via H₂O-mediated hydride transfer reactions

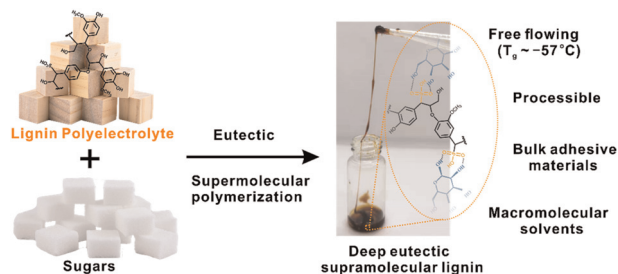
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Fluidic lignin with ultra-low glass transition temperature ($T_g < -57^\circ\text{C}$): a versatile polyelectrolyte solvent platform

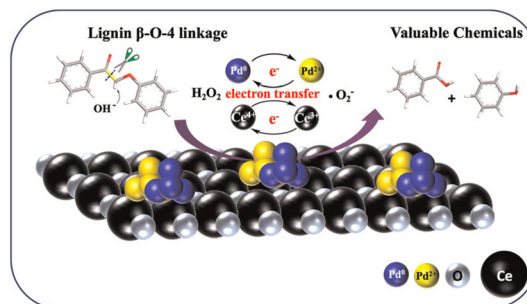
Qiaoling Liu, Yang Wang, Hairong Wang, Zhenhua Su, Xiang Hao* and Feng Peng*



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Selective C–C bond cleavage of oxidized lignin in an aqueous phase under mild conditions

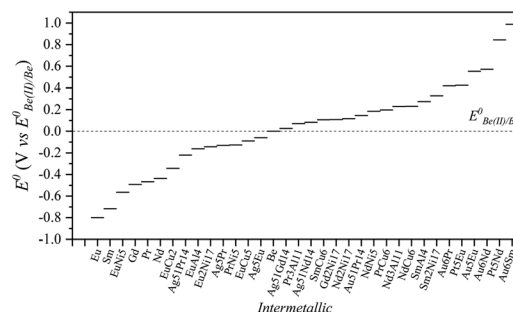
Yuzhen Hu, Yanbin Cui, Shuoxiao Zhao, Xuelai Zhao, Xiaohong Hu, Zhenlong Song, Wei Fan* and Qi Zhang*



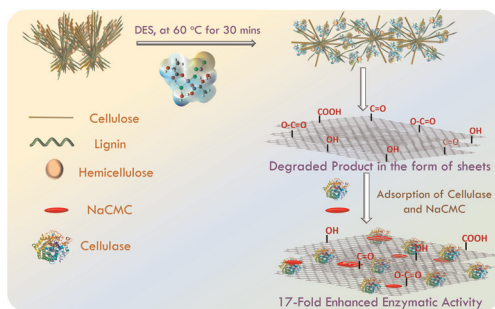
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Evaluation of noble metals as reactive electrodes for separation of lanthanides from molten LiF-BeF₂

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



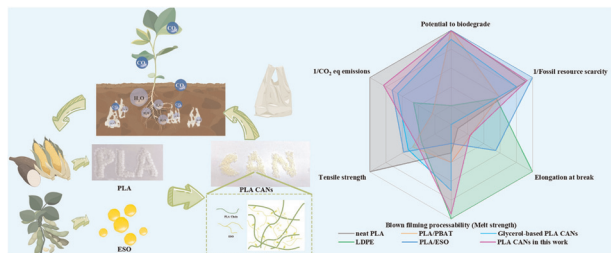
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Sustainable preparation of oxidized graphitic material from wheat straw using a deep eutectic solvent for superactivity of cellulase

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

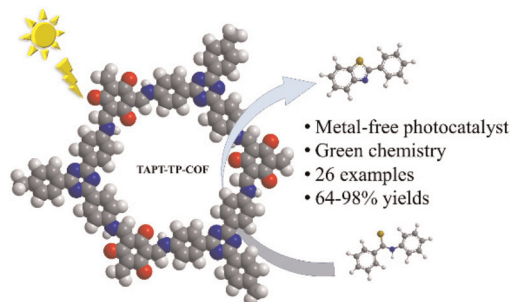
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Blowing tough polylactide film enabled by the *in situ* construction of covalent adaptive networks with epoxidized soybean oil as dynamic crosslinks

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

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A β -ketoenamine-linked covalent organic framework as a heterogeneous photocatalyst for the synthesis of 2-arylbenzothiazoles by cyclization reaction

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*

- Visible-light-driven C-H functionalization and C-S formation
- Metal-free heterogeneous catalysis
- O₂ as oxidant
- Mild and simple reaction conditions
- Readily available substrate

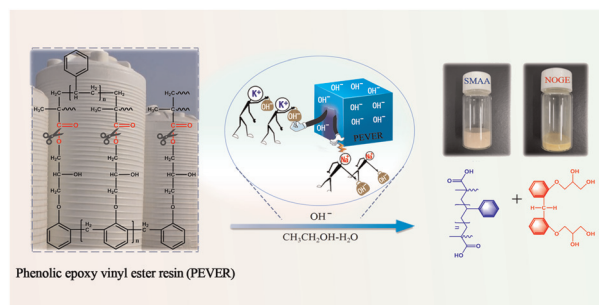


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Affinity of K^+ to organic matter promotes reactions: degradation of super stable phenolic epoxy vinyl ester resin to value-added chemicals

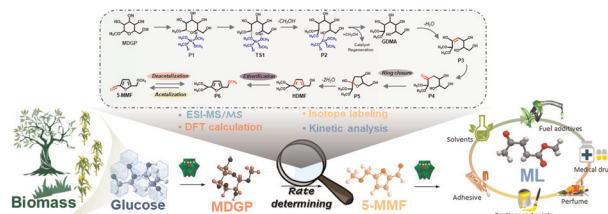
Weijie Wang, Ning Zhang, Chizhou Wang, Hongyan Li, Shiyu Jia, Yongqin Qi, Houhai Fan, Xiaojing Cui,* Xianglin Hou* and Tiansheng Deng*



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Understanding the mechanism of enhanced alcoholysis of biomass carbohydrates to alkyl levulinates over bifunctional catalysts: does it resemble that in water?

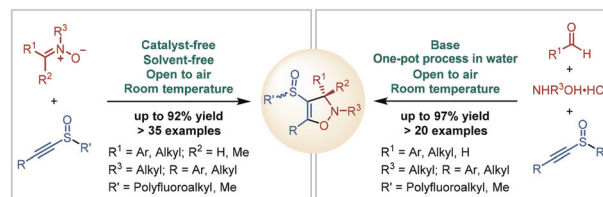
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Facile synthesis of (polyfluoro)alkanesulfonyl 4-isoxazolines: a stepwise solvent- and catalyst-free approach or a one-pot process in water

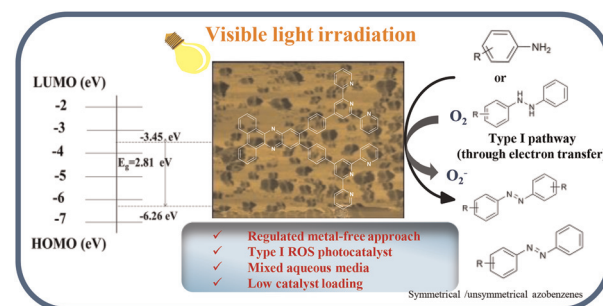
Tian-Ming Liao, Wen-Jiang Ma, Yu-Ning Gao, Ming Bian, Min Jiang, Jin-Tao Liu, Hui-Yu Chen* and Zhen-Jiang Liu*



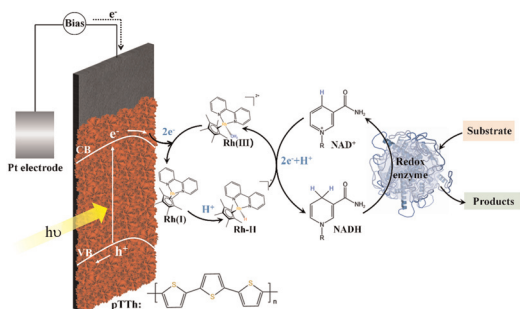
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Type I strong acceptor–weak acceptor photosensitizing assemblies for the regulated aerobic oxidative coupling of anilines

Lovjot Kaur, Manoj Kumar and Vandana Bhalla*



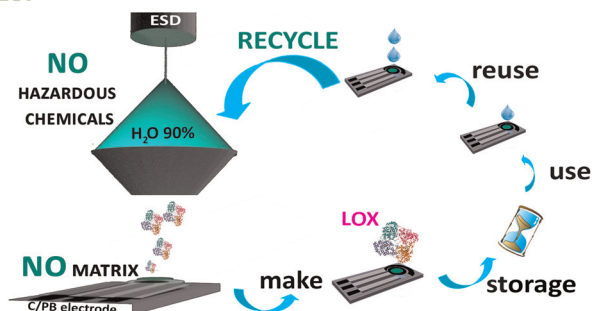
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Photoelectrochemical NADH regeneration on a polymer semiconductor-based photocathode

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

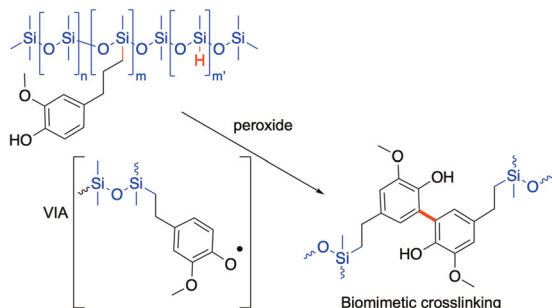
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Improved reuse and storage performances at room temperature of a new environmentally friendly lactate oxidase biosensor prepared by ambient electro spray immobilization

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

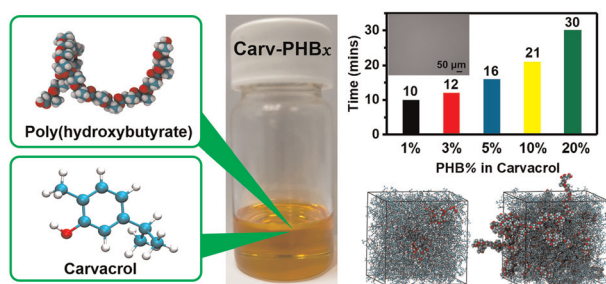
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Learning from the trees: biomimetic crosslinking of silicones by phenolic coupling

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

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Rapid dissolution of high concentration poly(3-hydroxybutyrate) using neoteric biosolvents: experiment and molecular dynamics simulation

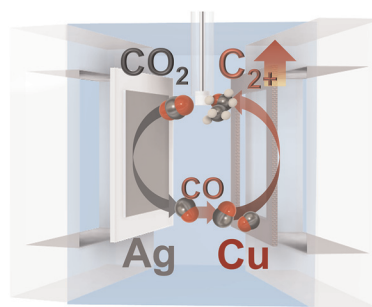
Joseph Kinyanjui Muiruri, Jayven Chee Chuan Yeo, Tang Yuanting Karen, Ke Li, Enyi Ye, Xian Jun Loh* and Zibiao Li*



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Bipotentiostatic tandem electrocatalysis of the CO₂ reduction reaction yielding C₂₊ 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*

