

Green Chemistry

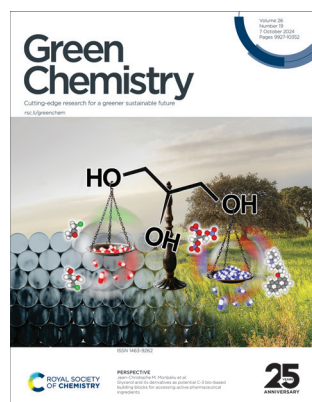
Cutting-edge research for a greener sustainable future

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See Jean-Christophe M. Monbaliu *et al.*, pp. 10029–10057.

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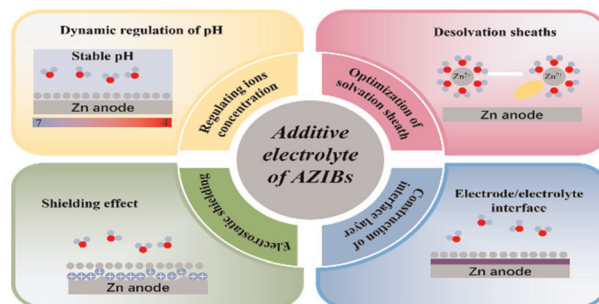
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Insight into aqueous electrolyte additives: unraveling functional principles, electrochemical performance, and beyond

Zhuo Chen, Junrun Feng, Pengfei Yao, Jinlong Cai and Zhangxiang Hao*

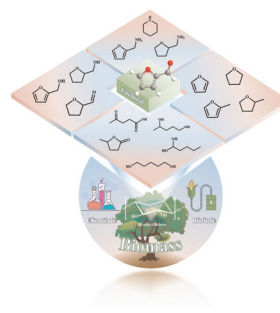


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Recent catalytic innovations in furfural transformation

Kangyu Zhao, Bin Wen, Qing Tang, Feng Wang, Xianxiang Liu,* Qiong Xu and Dulin Yin



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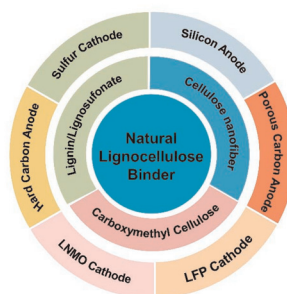
**Fundamental questions
Elemental answers**

TUTORIAL REVIEWS

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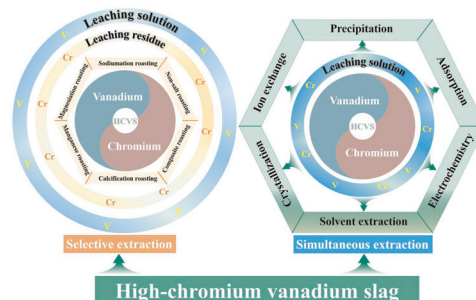
Zhuzuan Chen, Shengzhi Li, Guangzhao Zhang, Yu Yang and Yong Qian*



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Weizao Liu,* Zhenghao Wang,* Wen Cao, Yanjie Liang, Sohrab Rohani, Yuntao Xin, Jinmao Hua, Chunlian Ding and Xuewei Lv*

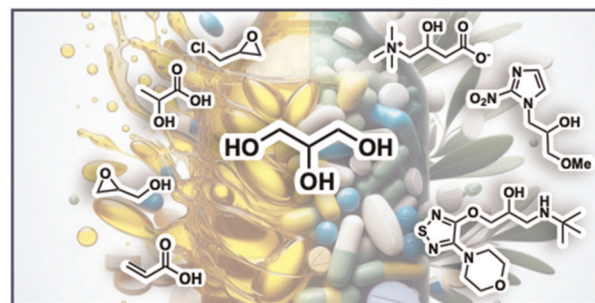


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Romain Morodo, Loïc Bovy, Diana V. Silva-Brenes and Jean-Christophe M. Monbaliu*

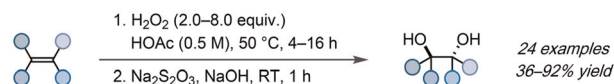


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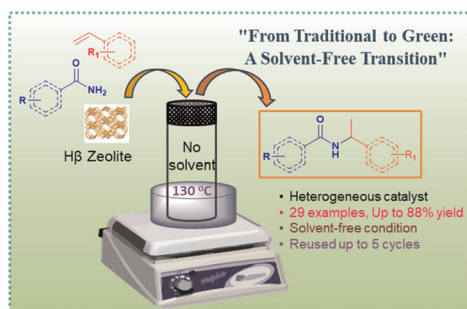
anti-Dihydroxylation of olefins enabled by *in situ* generated peroxyacetic acid

Michael Tapera, Mohit Chotia, Jan Lukas Mayer-Figge, Adrián Gómez-Suárez* and Stefan F. Kirsch*



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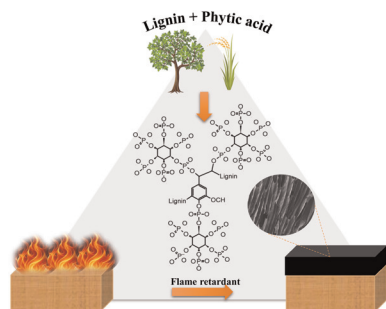


Solvent-free Markovnikov hydroamination of vinylarenes with carboxamides: a heterogeneous catalytic approach using H β zeolite

Amrutham Vasu, Mamed Naresh,* Gajula Krishna Sai, Boosa Murali, Dasu Suchitha, Avusali Sai Teja and Nama Narender*

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Phytic acid derivatized lignin as a thermally stable and flame retardant material

Saba Khodavandegar and Pedram Fatehi*

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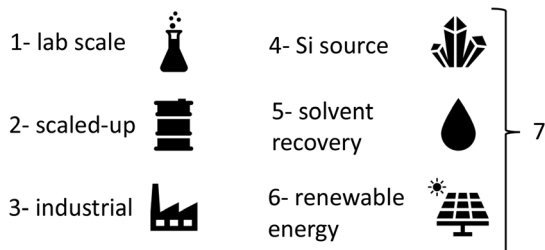


Path2Green: introducing 12 green extraction principles and a novel metric for assessing sustainability in biomass valorization

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A comparative life cycle assessment of the synthesis of mesoporous silica materials on a small and a large scale

Jose Vicente Ros-Lis,* Sylvia Vetter and Pete Smith

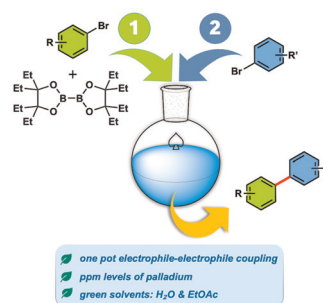


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Environmentally friendly Miyaura Borylations allowing for green, 1-pot borylation/Suzuki–Miyaura couplings

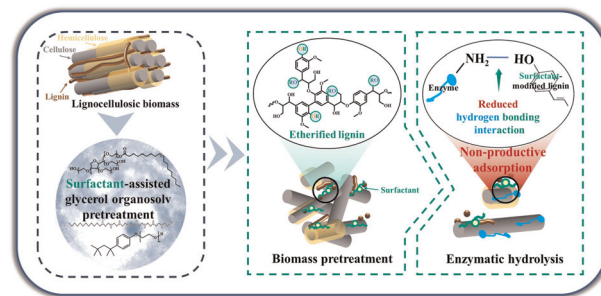
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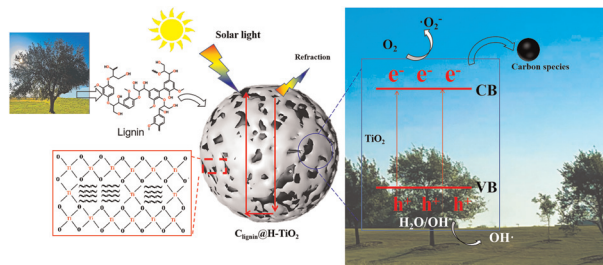
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3D structure-functional design of a biomass-derived photocatalyst for antimicrobial efficacy and chemical degradation under ambient conditions

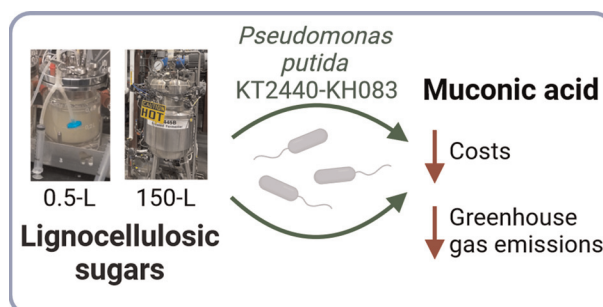
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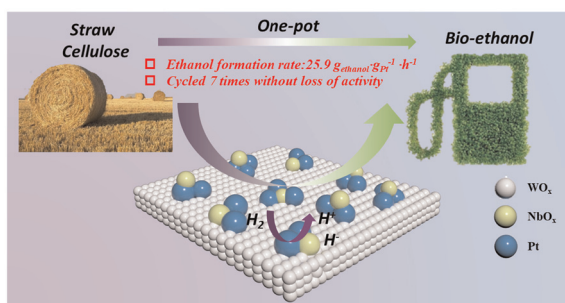
Bioprocess development and scale-up for *cis,cis*-muconic acid production from glucose and xylose by *Pseudomonas putida*

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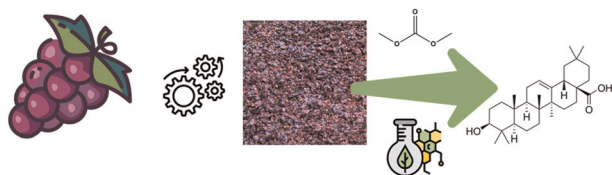
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Improving both activity and stability for direct conversion of cellulose to ethanol by decorating Pt/ WO_x with mononuclear NbO_x

Weixiang Guan, Chen Cao, Fei Liu, Aiqin Wang* and Tao Zhang

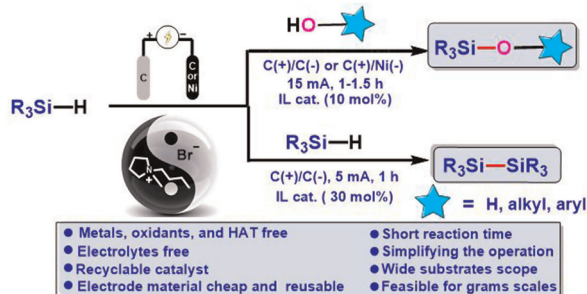
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Efficient and selective extraction of oleanolic acid from grape pomace with dimethyl carbonate

Francesco Errichiello, Raffaele Cucciniello,* Michele Tomasini, Laura Falivene, Angelita Gambuti, Chiara Cassiano and Martino Forino

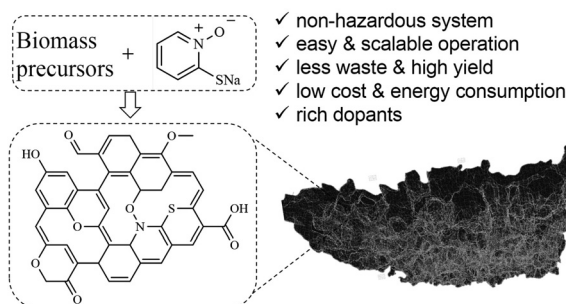
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Electrochemical oxidative dehydrogenation of hydrosilanes to generate silyl radicals: an efficient method for the construction of Si–O/Si–Si bonds utilizing a recyclable ionic liquid catalyst

Zhaoxin Wei, Ziren Chen, Fei Xue, Yuancheng Yue, Shaofeng Wu, Yonghong Zhang, Bin Wang, Yu Xia, Weiwei Jin and Chenjiang Liu*

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Lingqi Huang, Zilong Gu, Jiayang Gu, Fei Zhang,* Jingshun Zhuang, Qingzhi Ma, Tao Zhang, Jingfei Li, Heyang Liu* and Wei Feng*

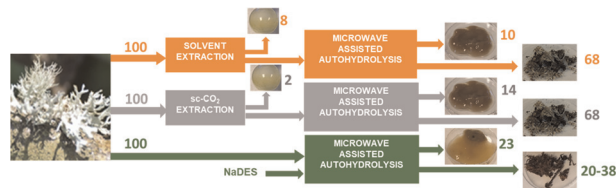


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Alternatives for the extraction of bioactives and biopolymers from *Evernia prunastri* for the formulation of antimicrobial bio-based films

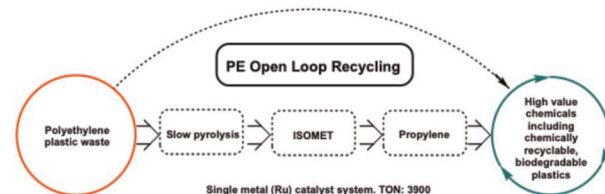
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Ruthenium-catalyzed “open-loop” recycling of polyethylene via tandem isomerization-metathesis (ISOMET)

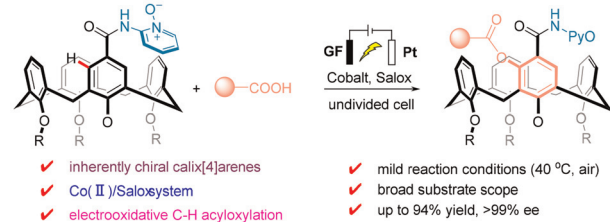
Vajk Farkas, Pascal Albrecht, Ádám Erdélyi, Márton Nagyházi, Beatrix Csutorás, Gábor Turczel, Norbert Miskolczi, Janka Bobek-Nagy, Ole Osterthun, Jürgen Klankermayer* and Robert Tuba*



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Enantioselective electrosynthesis of inherently chiral calix[4]arenes via a cobalt-catalyzed aryl C–H acyloxylation

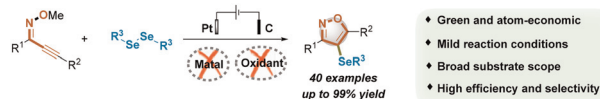
Liming Zhang, Chen Yang, Xinhai Wang, Taixin Yang, Dandan Yang, Yingchao Dou* and Jun-Long Niu*



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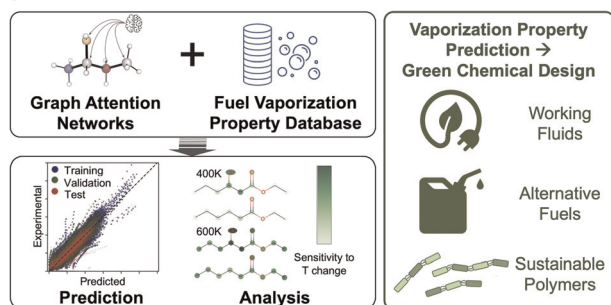
Electrochemically promoted selenocyclization for the synthesis of organoselenyl isoxazoles

Nan Sun,* Zhi Qiao, Jiamin Li, Jiazhi Gu, Liqun Jin and Xinquan Hu*



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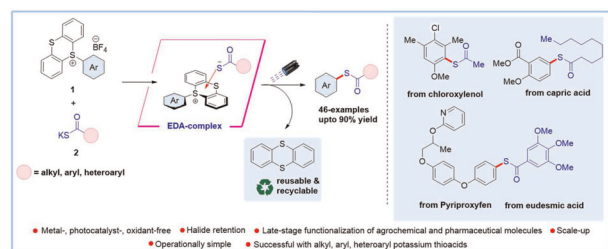
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Designing green chemicals by predicting vaporization properties using explainable graph attention networks

Yeonjoon Kim, Jaeyoung Cho, Hojin Jung, Lydia E. Meyer, Gina M. Fioroni, Christopher D. Stubbs, Keunhong Jeong, Robert L. McCormick, Peter C. St. John* and Seonah Kim*

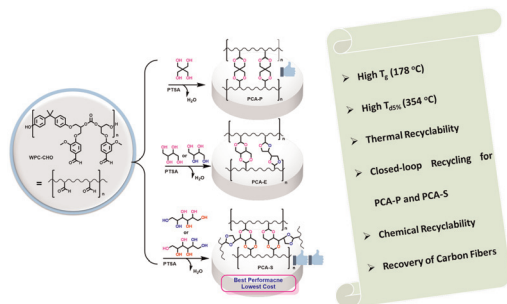
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General electron-donor-acceptor complex mediated thioesterification reaction via site-selective C-H functionalization using aryl sulfonium Salts

Roshan I. Patel, Barakha Saxena and Anuj Sharma*

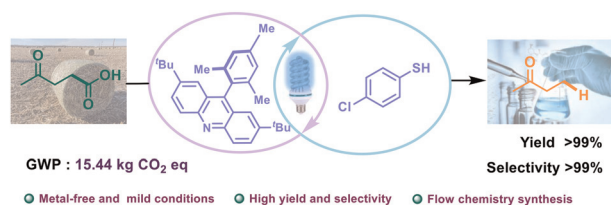
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Poly(carbonate acetal) vitrimers with enhanced thermal properties and closed-loop thermal recyclability derived from waste polycarbonate-derived polyaldehyde and pentaerythritol/erythritol/D-sorbitol

Yi-Chun Chen, Kamani Sudhir K. Reddy, Ru-Jong Jeng* and Ching-Hsuan Lin*

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Preparation of methyl ethyl ketone from biomass-derived levulinic acid using a metal-free photocatalytic system and life cycle assessment study

Meng-Xiang Shen, Chen-Qiang Deng, Jie Yang and Jin Deng*

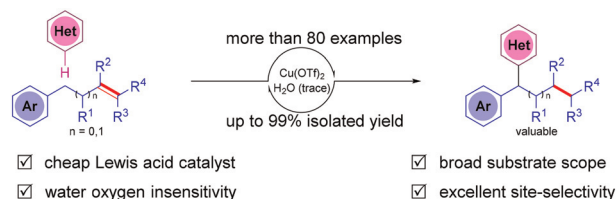


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Acid-catalyzed regioselective remote heteroarylation of alkenes via C=C bond migration

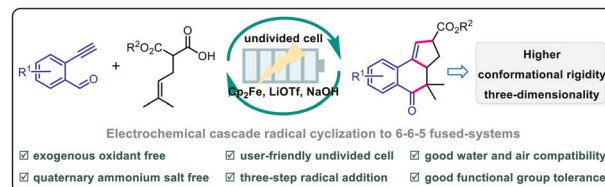
Shengxiang Qin, Yaqi Zhang, Long Jiang, Man Kin Tse, Albert S. C. Chan and Liqin Qiu*



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De novo synthesis of 6-6-5 fused systems through electrochemical decarboxylation and radical domino additions

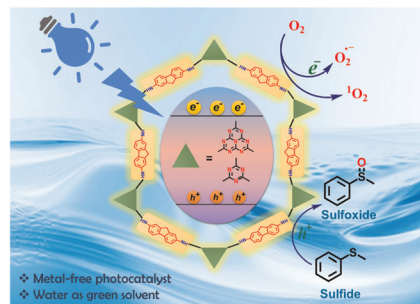
Chengcheng Yuan, Guanru Liu, Wenjing Guan, Jinlin Hang, Zheng Fang, Chengkou Liu* and Kai Guo*



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Molecular structural engineering of donor–acceptor-based porous organic polymers for sulfide photooxidation in water: a sustainable approach

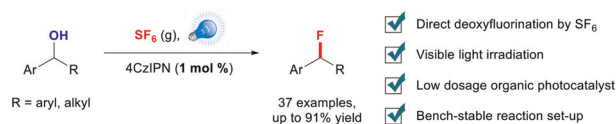
Neha Saini, Kirti Dhingra, Amit Kumar and Kamalakannan Kailasam*



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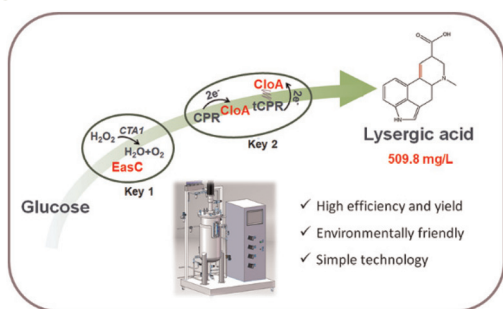
Visible light-induced photocatalytic deoxyfluorination of benzyl alcohol using SF₆ as a fluorinating reagent

Yi-Fan Zhang, Shan Zhu, Ya-Wen Zuo, Hang Liu, Ruo-Xing Jin* and Xi-Sheng Wang*



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Highly efficient synthesis of lysergic acid using engineered budding yeast

Nan Wu, Mingdong Yao, Wenhai Xiao, Ying Wang* and Ying-Jin Yuan

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Metal- and oxidant-free carbonylation of benzylic and allylic C–H bonds with H₂O via dual oxidative radical-polar crossover

Xiaona Yang, Bingjie Ren, Hongyu Guo,* Rongfang Liu* and Rong Zhou*

