

Green Chemistry

Cutting-edge research for a greener sustainable future

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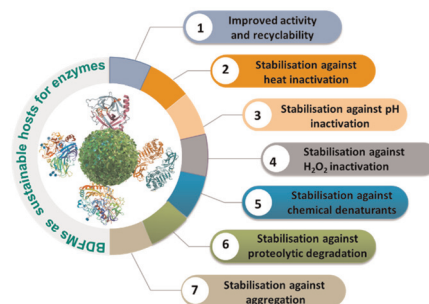
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Paweł Mateusz Nowak

Unified Greenness Theory



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Inverse vulcanization of elemental sulfur catalyzed by trialkyl amines

Jae Hyuk Hwang, Ji Mok Lee, Jong Hwi Seo, Guk Yun Noh, Wonmoo Byun, Seonggeon Kim, Woohwa Lee, Sungmin Park,* Dong-Gyun Kim* and Yong Seok Kim*

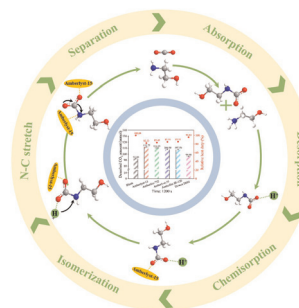
Facile and Fast Inverse Vulcanization of Elemental Sulfur (ES) using Unreactive Crosslinkers under Eco-friendly Trialkyl Amines (TAAs) Catalysis



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Evaluation of hybrid amines and alcohol solvent with ion-exchange resin catalysts for energy-efficient CO₂ capture

Qiang Sun, Jia Xiong, Hongxia Gao,* Teerawat Sema, Wilfred Olson and Zhiwu Liang*



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An electrochemical-enabled cascaded cyclization of enaminones with potassium thiocyanate and alcohols to access 2-alkoxythiazoles

Dandan Li,* Long Chen, Yang Jin, Xiaochen Wang, Long Liu, Yilin Li, Gongyuan Chen, Guanhao Wu, Yujie Qin, Leilei Yang, Mengke Wang, Lulu Zhao, Zhihong Xu and Jiangwei Wen*

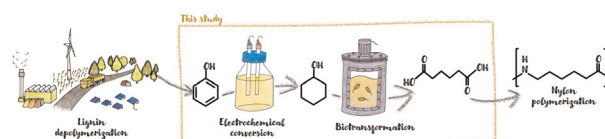


- Metal, external redox reagent free
- Three-component cascade reaction
- Cleavage of C-N bond and high effective construction of C-N/C-O/C-S bonds in one pot

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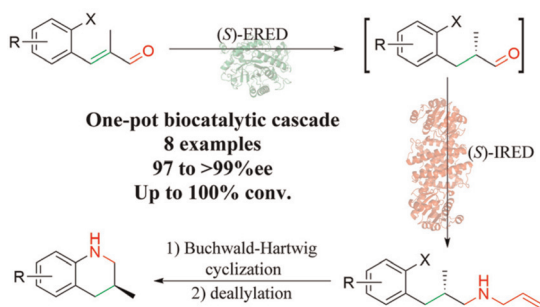
Integrated electrosynthesis and biosynthesis for the production of adipic acid from lignin-derived phenols

Micjel Chávez Morejón, Alexander Franz, Rohan Karande* and Falk Harnisch*



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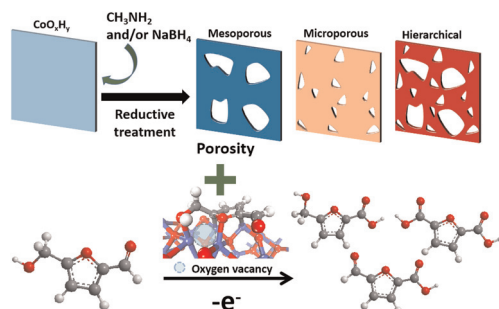
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Chemo-enzymatic synthesis of chiral 3-substituted tetrahydroquinolines by a sequential biocatalytic cascade and Buchwald–Hartwig cyclization

Zefei Xu, Jinhui Feng, Peiyuan Yao,* Qiaqing Wu* and Dunming Zhu*

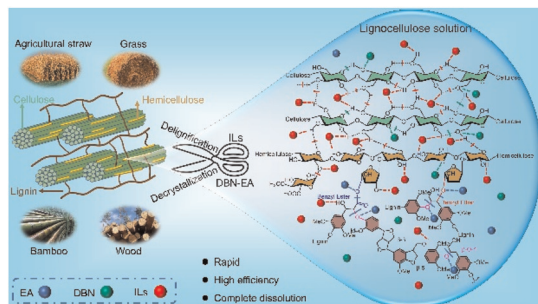
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Room-temperature fabrication of defective CoO_xH_y nanosheets with abundant oxygen vacancies and high porosity as efficient 5-hydroxymethylfurfural oxidation electrocatalysts

Ruyi Zhong, Puwei Wu, Qi Wang, Xiting Zhang, Lei Du, Yunhua Liu, Huakang Yang, Meng Gu, Z. Conrad Zhang, Limin Huang* and Siyu Ye*

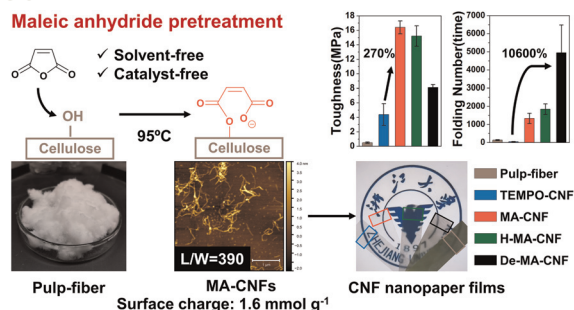
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Robust ionic liquid/ethanolamine-superbase solvents enable rapid, efficient and mild dissolution of lignocellulosic biomass

Yang Wang, Huan Wang, Lan Chen, Weitao Wang, Zhaohui Yang, Zhimin Xue* and Tiancheng Mu*

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Eco-friendly cellulose nanofibrils with high surface charge and aspect ratio for nanopaper films with ultrahigh toughness and folding endurance

Da Zhang, Kexia Jin, Khak Ho Lim, Suyun Jie, Wen-Jun Wang and Xuan Yang*

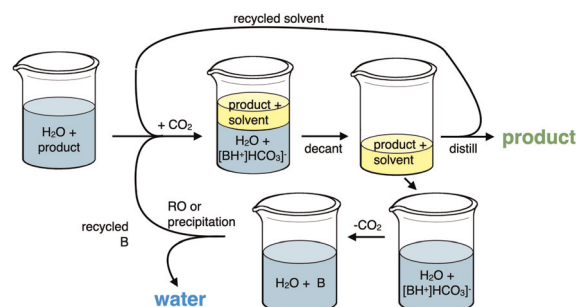


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A CO₂-responsive method for separating hydrophilic organic molecules from aqueous solutions: solvent-assisted switchable water

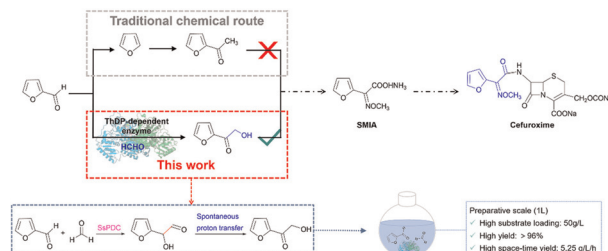
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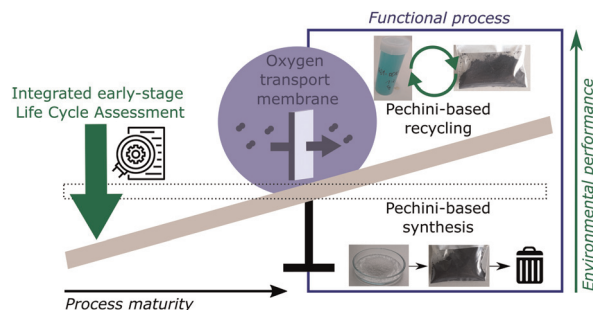
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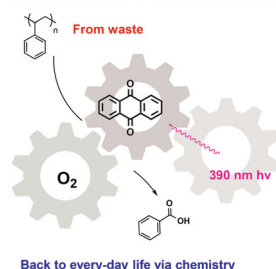
Recycling process development with integrated life cycle assessment – a case study on oxygen transport membrane material

Melanie Johanning, Marc Widenmeyer,* Giamper Escobar Cano, Vanessa Zeller, Sebastian Klemenzen, Guoxing Chen, Armin Feldhoff and Anke Weidenkaff

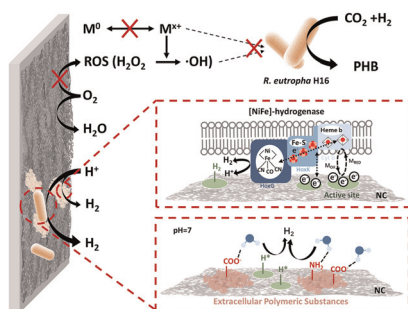


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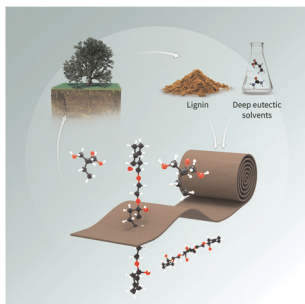
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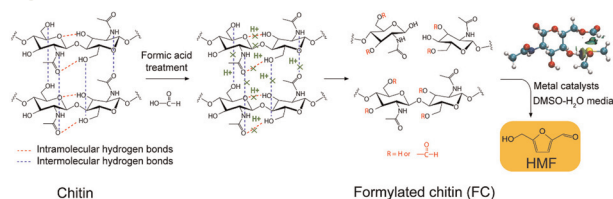
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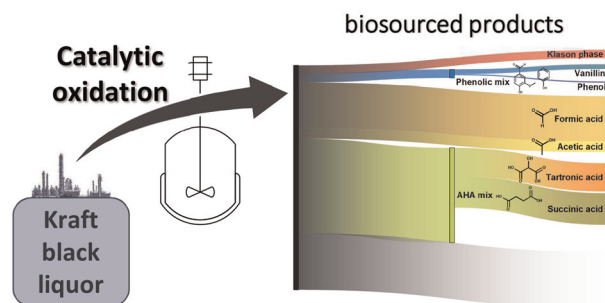
Efficient conversion of chitin into
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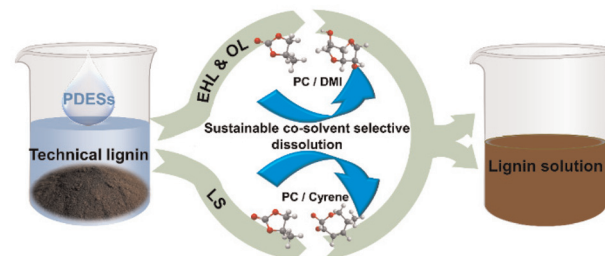
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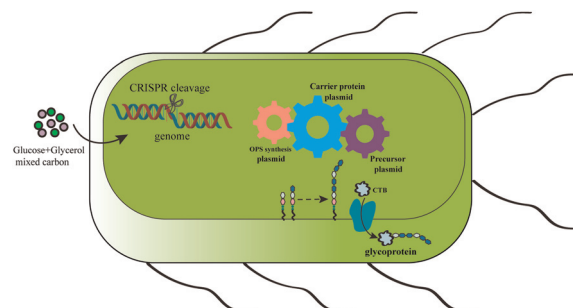
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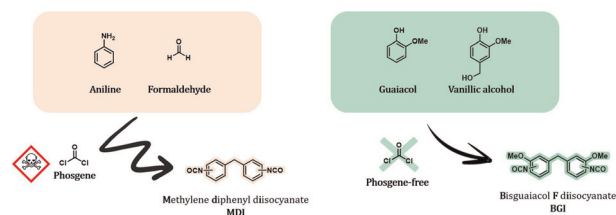
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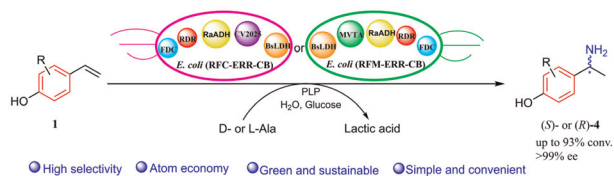
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Sébastien Lemouzy, Aliénor Delavarde, Frédéric Lamaty, Xavier Bantreil, Julien Pinaud and Sylvain Caillol*



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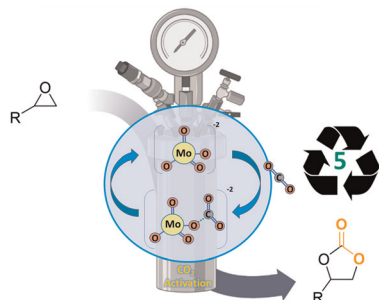
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Qi Jin, Jingqi Zhang, Shuangping Huang, Lili Gao, Honghong Chang and Jiandong Zhang*

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Nicola Bragato, Alvise Perosa, Maurizio Selva, Giulia Fiorani* and Roberto Calmanti*

CORRECTION

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Correction: Sustainable pathway to furanics from biomass via heterogeneous organo-catalysis

Sanny Verma, R. B. Nasir Baig, Mallikarjuna N. Nadagouda, Christophe Len and Rajender S. Varma*

