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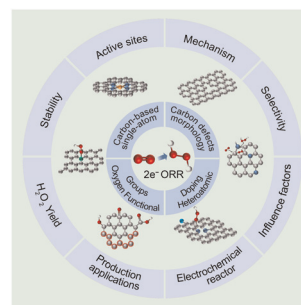


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Review and perspectives on carbon-based electrocatalysts for the production of H₂O₂ via two-electron oxygen reduction

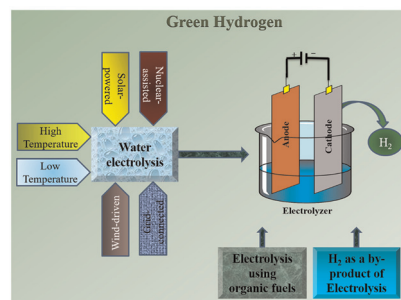
Hongjing He, Shuling Liu, Yanyan Liu,* Limin Zhou, Hao Wen, Ruofan Shen, Huanhuan Zhang, Xianji Guo, Jianchun Jiang and Baojun Li



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Electrochemical hydrogen production: sustainable hydrogen economy

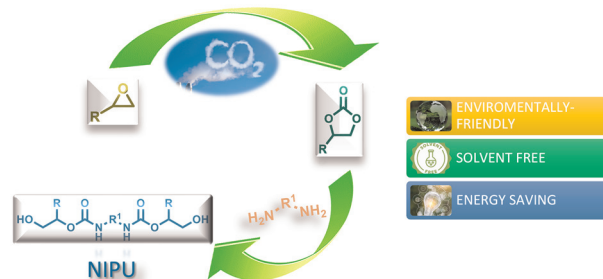
Samina Aslam, Sadia Rani, Kiran Lal, Miraj Fatima, Tomas Hardwick, Bahareh Shirinfar and Nisar Ahmed*



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CO₂-derived non-isocyanate polyurethanes (NIPUs) and their potential applications

Rita Turnaturi, Chiara Zagni,* Vincenzo Patamia, Vincenzina Barbera, Giuseppe Floresta and Antonio Rescifina*

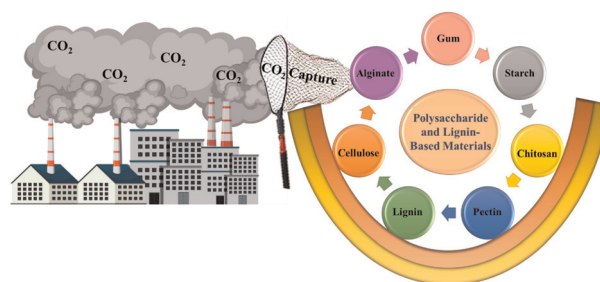


CRITICAL REVIEWS

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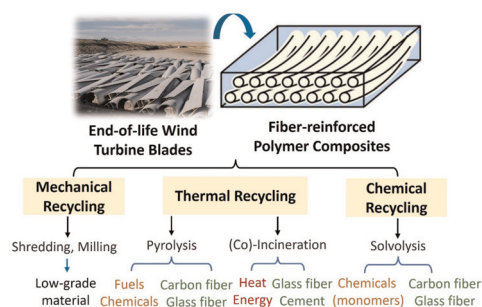
Recent developments in polysaccharide and lignin-based (nano)materials for CO₂ capture

Zahra Nezafat, Mahmoud Nasrollahzadeh,* Shahrzad Javanshir, Talat Baran and Yahao Dong



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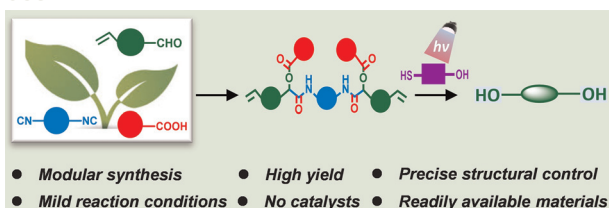


Recycling and recovery of fiber-reinforced polymer composites for end-of-life wind turbine blade management

Yafei Shen,* Sarkodie Emmanuel Apraku and Yupeng Zhu

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Le Jiang, Li Wang, Qiang Yan, Haojun Fan and Jun Xiang*

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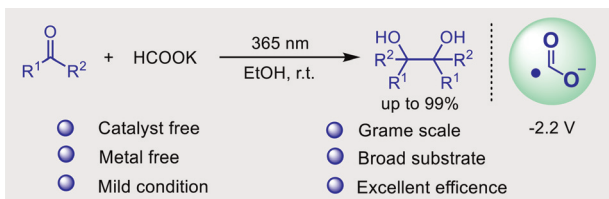
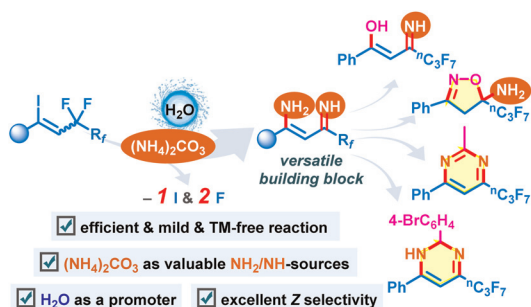


Photo-catalyst-free photomediated pinacol coupling of ketones/aldehydes by formate at room temperature

Qing Shen, Kun Cao, Xueqin Chen, Xue Li, Naiyou Zhang, Yang-Bao Miao and Jiahong Li*

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Water-promoted defluorinative synthesis of fluoroalkylated 1,5-diazapentadienes by using (NH₄)₂CO₃ as an NH₂ and NH source

Wei Han, Yu-Lan Chen, Xi Tang, Jie Zhou,* Mengtao Ma, Zhi-Liang Shen* and Xue-Qiang Chu*

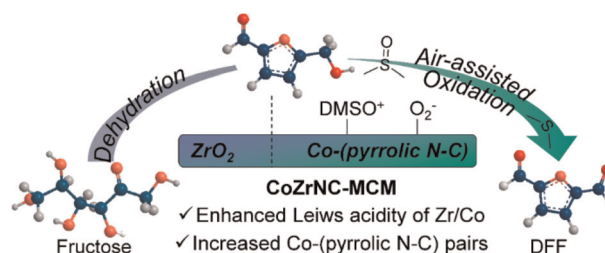


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A unique air-assisted DMSO oxidation pathway for the highly efficient synthesis of 2,5-diformylfuran from 5-hydroxymethylfurfural/fructose

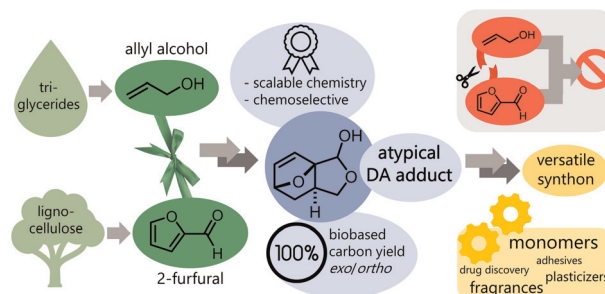
Yujia Pang, Ning Chen, Zhizhou Zhao, Lei Zhang, J. O. P. Broekman, Junnan Wei,* Xiujuan Li, Lu Lin and He Huang*



9689

Efficient synthesis of fully renewable, furfural-derived building blocks *via* formal Diels–Alder cycloaddition of atypical addends

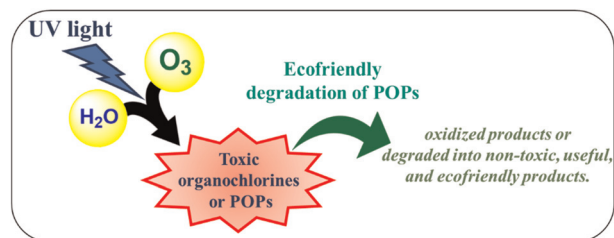
Răzvan C. Cioc,* Eva Harsevoort, Martin Lutz and Pieter C. A. Bruijninx*



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Oxidative destruction of chlorinated persistent organic pollutants by hydroxyl radicals *via* ozone and UV light irradiation

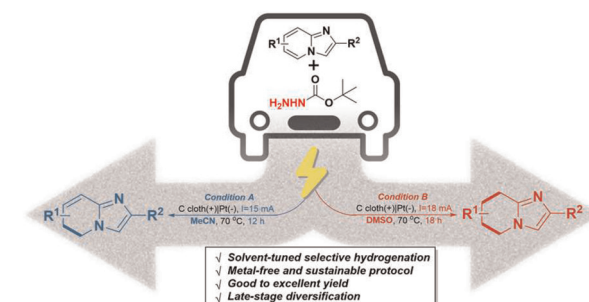
Ayyakkannu Ragupathi, Vaibhav Pramod Charpe, Jih Ru Hwu and Kuo Chu Hwang*



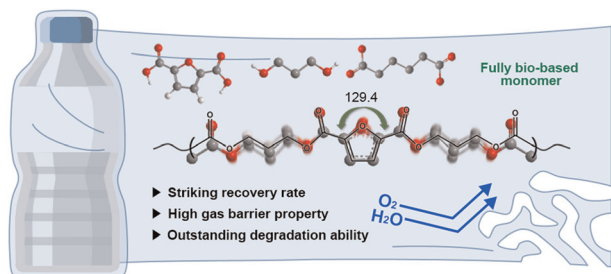
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Electrochemical-induced solvent-tuned selective transfer hydrogenation of imidazopyridines with carbazates as hydrogen donors

Zhicong Tang, Gang Hong, Jian Chen, Ting Huang, Zichao Zhou and Limin Wang*



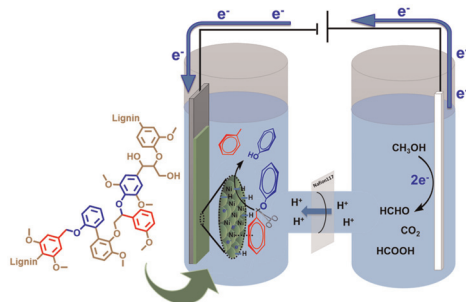
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Extending the high-performing boundaries of a fully bio-based thermal shrinkage film targeted for food packaging applications

A-Yeon Lim, Sung Bae Park, Yumi Choi, Dongyeop X. Oh,* Jeyoung Park,* Hyeonyeol Jeon* and Jun Mo Koo*

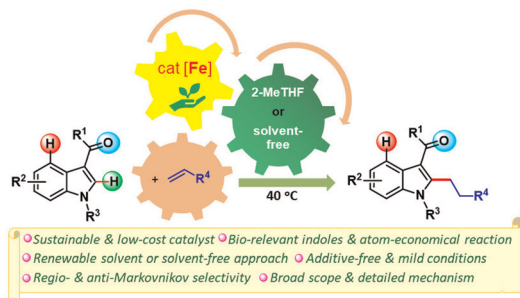
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Mechanistic investigation of a Ni-catalyzed electrochemical reductive cleavage of the α -O-4 bond in the lignin model compound benzyl phenyl ether

Fang Lin, Predrag V. Petrović, Ho-Yin Tse, Hanno C. Erythropel, Jason Chun-Ho Lam* and Paul T. Anastas*

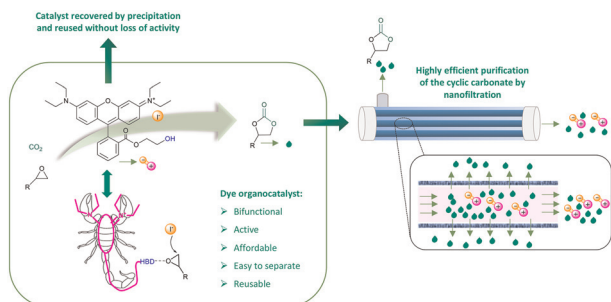
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Iron-catalyzed regioselective C–H alkylation of indoles: an additive-free approach in renewable solvent

Chandini Pradhan, Rahul A. Jagtap, Pragnya Paramita Samal, Sailaja Krishnamurthy and Benudhar Punji*

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Dyes as efficient and reusable organocatalysts for the synthesis of cyclic carbonates from epoxides and CO_2

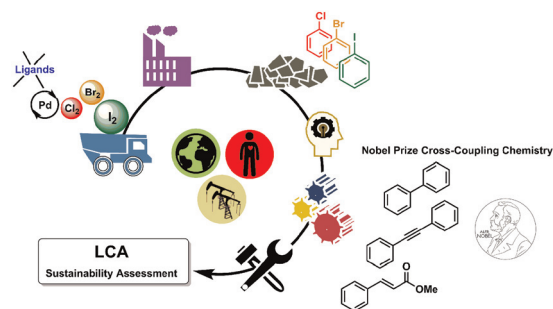
Jing Chen, Giulia Chiarioni, Gert-Jan W. Euverink and Paolo P. Pescarmona*



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The sustainability impact of Nobel Prize Chemistry: life cycle assessment of C–C cross-coupling reactions

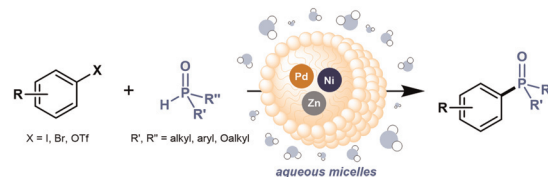
Jose Luis Osorio-Tejada, Francesco Ferlin, Luigi Vaccaro and Volker Hessel*



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Multimetallic Pd- and Ni-catalyzed C(sp²)–P cross-coupling under aqueous micellar conditions

Rafael Navrátil,* Kristýna Kellovská and Ondřej Baszczyński*

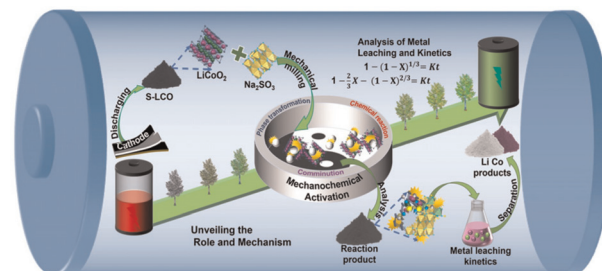


- mild micellar multimetallic and dual-ligand C(sp²)–P cross-coupling
- over 100 examples
- avoids toxic organic solvents
- commercial reagents and catalysts
- medchem scaffolds

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Interfacial process engineering of a co-grinding agent for recycling spent lithium-ion batteries

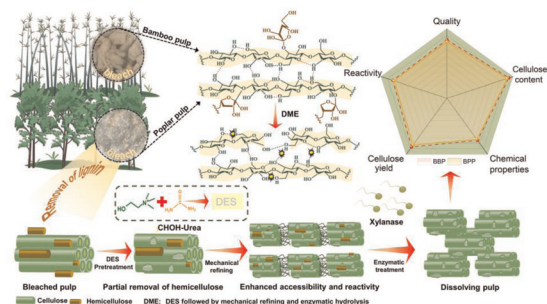
Jie Ren, Zhewen Zhang, Zikang Chen, Li Wan, Kaixiang Shi, Xiaoyuan Zeng, Junhao Li* and Quanbing Liu*



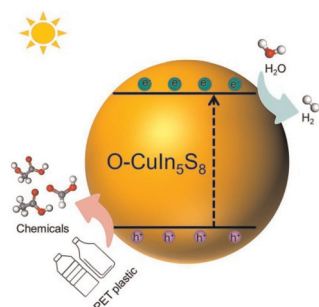
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The complete conversion of bleached kraft pulp into dissolving pulp and two xylo-oligosaccharides through a deep eutectic solvent-assisted biorefinery

Qiongyao Su, Yujie Guo, Mei Huang, Li Zhao, Churui Huang, Jianmei Zou, Yan Liu, Jinguang Hu, Fei Shen and Dong Tian*



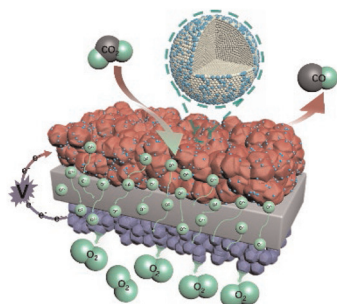
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Upgrading polyethylene terephthalate plastic into commodity chemicals paired with hydrogen evolution over a partially oxidized CuIn_5S_8 nanosheet photocatalyst

Mengmeng Du, Mengyuan Xing, Wenfang Yuan, Liang Zhang, Tao Sun,* Tian Sheng,* Chunyu Zhou and Bocheng Qiu*

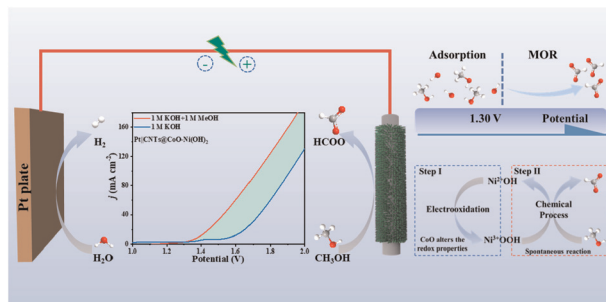
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In situ passivation of Fe nanoparticles exsolved from perovskite cathodes through zinc doping for CO_2 electrolysis

Shuai Liu, Meiting Yang, Ruijia Xu, Xinghe Xiang, Guangming Yang,* Haoran Xu, Gang Xiao, Ran Ran, Wei Zhou and Zongping Shao*

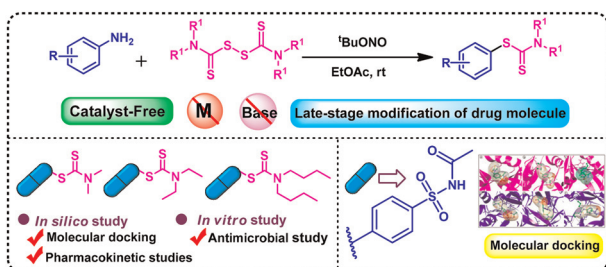
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Kuan Deng, Peng Liu, Xuesong Liu, Hongjiao Li, Wen Tian and Junyi Ji*

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Metal-free, *tert*-butyl nitrite promoted $\text{C(sp}^2\text{)-S}$ coupling reaction: the synthesis of aryl dithiocarbamates and analysis of antimicrobial activity by *in silico* and *in vitro* methods for drug modification

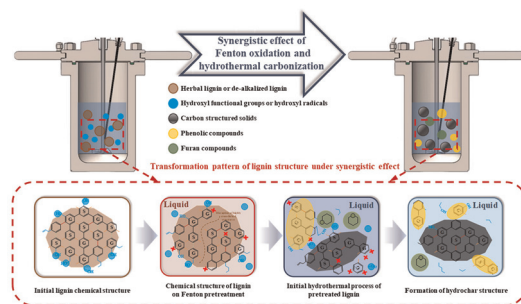
Satyajit Pal, Subhankar Sarkar, Anindita Mukherjee, Anupam Kundu, Animesh Sen, Jnanendra Rath, Sougata Santra, Grigory V. Zyryanov and Adinath Majee*



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Synergistic effect of Fenton pretreatment and hydrothermal carbonization of lignin on the physicochemical properties of the resulting hydrochar

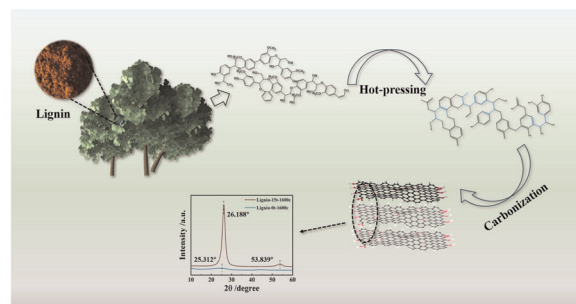
Jiaqian Fu, Li Bai,* Mingshu Chi,* Xiuling Xu, Kecheng Yu and Miao Wang



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Unlocking the graphitization potential of lignin: insights into its transformation through hot pressing and carbonization

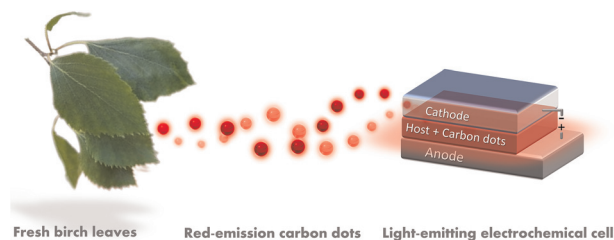
Wangda Qu,* Xiao Han, Jing Liu, Linghong Yin, Chen Liang and Pengyu Hu



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Fluorescent carbon dots from birch leaves for sustainable electroluminescent devices

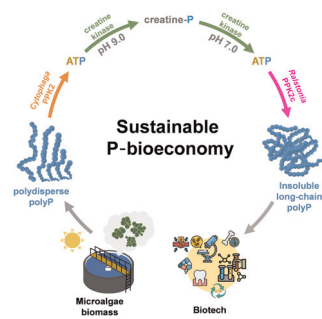
Shi Tang, Yongfeng Liu, Henry Opoku, Märta Gregorsson, Peijuan Zhang, Etienne Auroux, Dongfeng Dang, Anja-Verena Mudring, Thomas Wågberg, Ludvig Edman* and Jia Wang*



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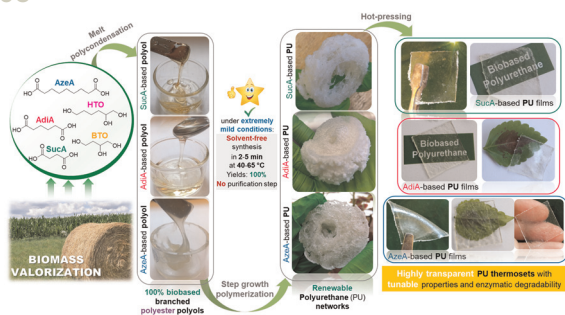
One-pot chemo-enzymatic synthesis and one-step recovery of length-variable long-chain polyphosphates from microalgal biomass

Yi-Hsuan Lin, Shota Nishikawa, Tony Z. Jia, Fang-I. Yeh, Anna Khusnutdinova, Alexander F. Yakunin, Kosuke Fujishima and Po-Hsiang Wang*



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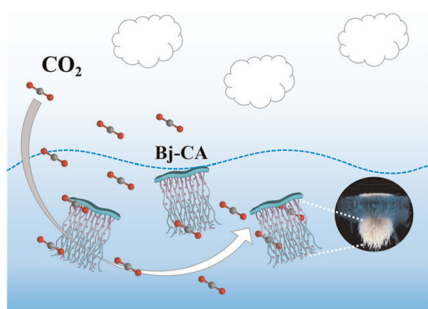
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Highly transparent polyurethane thermosets with tunable properties and enzymatic degradability derived from polyols originating from hemicellulosic sugars

Nejib Kasmi,* Yosra Chebbi, Alessandra Lorenzetti and Minna Hakkarainen*

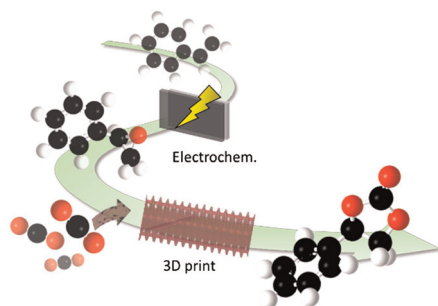
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Enhancing carbon capture efficiency with a large-sized bionic jellyfish-carbonic anhydrase complex

Xing Zhu, Chenxi Du, Bo Gao and Bin He*

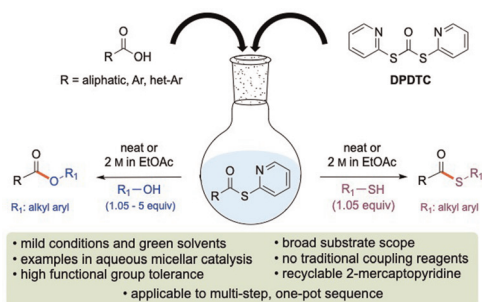
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Multi-step oxidative carboxylation of olefins with carbon dioxide by combining electrochemical and 3D-printed flow reactors

Diego Iglesias, Cristopher Tinajero, Simone Marchetti, Ignazio Roppolo, Marcileia Zanatta* and Victor Sans*

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Use of dipyridyldithiocarbonate (DPDTC) as an environmentally responsible reagent leading to esters and thioesters under green chemistry conditions

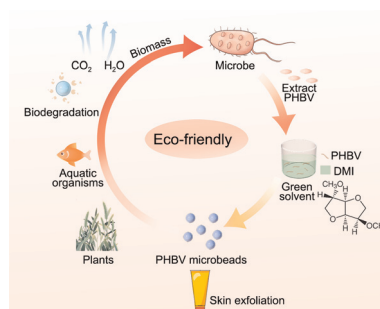
Kaitlyn M. Freiberg, Erika Ghiglietti, Matthew Scurria and Bruce H. Lipshutz*



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Green fabrication of PHBV microbeads using a dimethyl isosorbide solvent for skin exfoliators

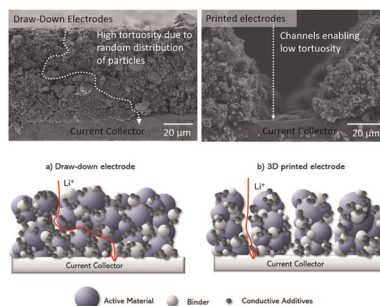
Xianzhu You, Yating Zhou, Xuru Jin,* Sheng Xiang, Xiaopeng Pei, Hua Zhou, Zhiyong Liao* and Ying Tan*



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Design principles for LiFePO_4 electrodes with improved recyclability

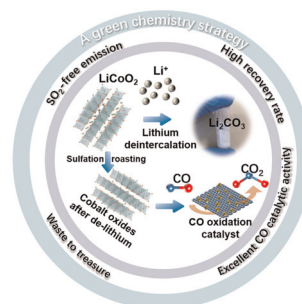
Lechen Yang, Dominika Gastol and Emma Kendrick*



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A green strategy for the selective recovery of lithium and the synthesis of CoFe_2O_4 catalyst for CO oxidation from spent lithium-ion batteries

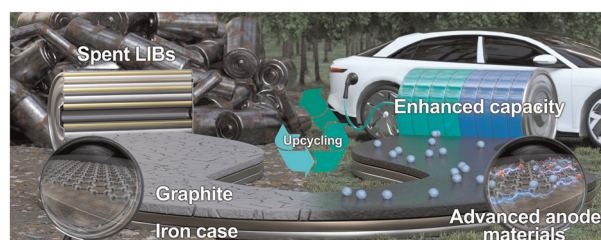
Minyu He, Weizao Liu,* Meijie Gao, Pengyang Zhang, Xi Jin, Hongli Wu* and Qingcai Liu



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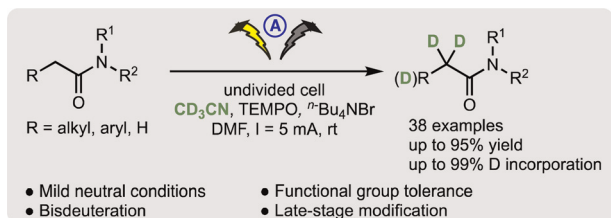
Upcycling of spent graphite and iron housing from waste lithium-ion batteries for fabricating cost-effective high-capacity anodes

Seokju Maeng, Jaeyun Ha, Jinhee Lee, Yong-Tae Kim* and Jinsub Choi*



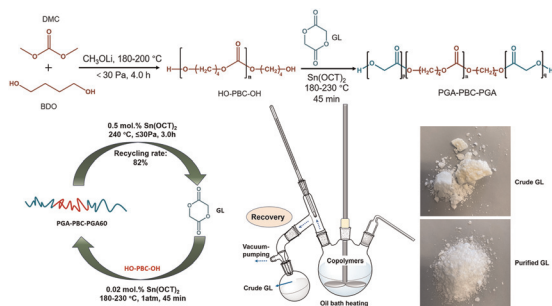
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Electrochemical α -deuteration of amides

Shulin Ning, Cheng Wu, Lianyou Zheng, Mian Liu, Yan Zhang, Xin Che and Jinbao Xiang*

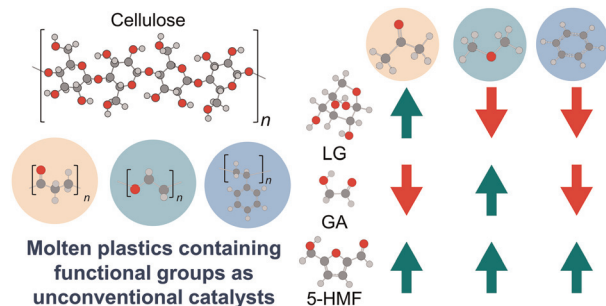
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Synthesis of biodegradable PGA-PBC-PGA triblock copolymers and closed-loop recycling via a thermal depolymerization strategy

Yong Wang, Liang Wen,* Jiajian Liu,* Chuncheng Li,* Zijian Zhang, Yaonan Xiao, Tian Yin, Shaohua Wu, Zhikui Jiang and Bo Zhang

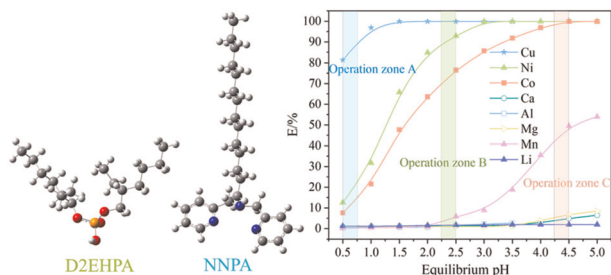
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Molten plastic induced noncovalent interactions for tunable cellulose fast pyrolysis

Fuat Sakirler, M. Doga Tekbas and Hsi-Wu Wong*

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A green and efficient process for the stepwise extraction of Cu, Ni, Co, Mn, and Li from hazardous waste with a novel solvent extraction system of D2EHPA-NNPA

Qiyuan Zheng, Li Zeng, Zuoying Cao,* Shengxi Wu, Qinggang Li, Mingyu Wang, Wenjuan Guan and Guiqing Zhang*

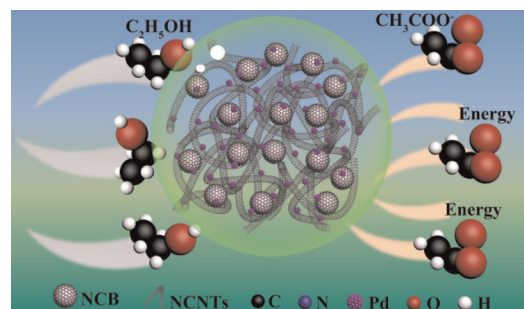


PAPERS

10033

Nitrogen-doped carbon nanotubes embedded with nitrogen-doped carbon black anchoring Pd nanocrystals to boost ethanol electrooxidation

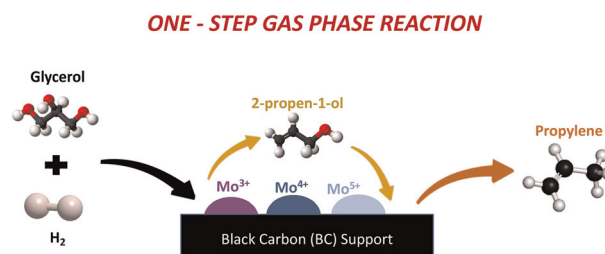
Shuwen Li,* Li Wu, Jinjuan Zhao, Ruxia Li, Honglei Yang, Limin Zhao and Ruifa Jin*



10043

Bio-glycerol hydrodeoxygenation to propylene: advancing knowledge on Mo-based catalyst characteristics and reaction pathways under flow conditions

Georgia Ioannidou and Angeliki A. Lemonidou*



10061

A multifunctional lignin-based composite ultra-adhesive for wood processing

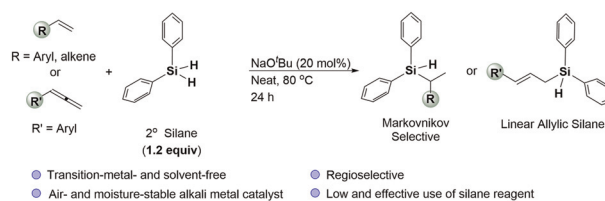
Boxiang Zhan, Long Zhang, Yongqi Deng and Lifeng Yan*



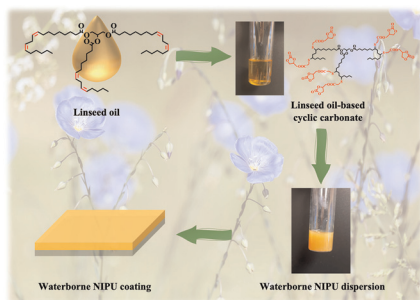
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Transition-metal- and solvent-free regioselective hydrosilylation of alkenes and allenes enabled by catalytic sodium *tert*-butoxide

Suresh Saini, Dharmendra Kumar Gupta, Ramesh Bhawar, Sheema Siddiqui, Manoj V. Mane and Shubhankar Kumar Bose*



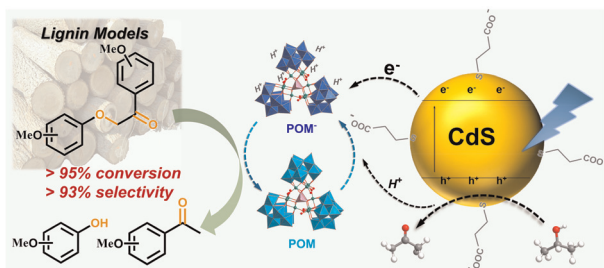
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Synthesis and properties of linseed oil-based waterborne non-isocyanate polyurethane coating

Zichen Ling and Qixin Zhou*

10091



Highly selective hydrogenolysis of lignin β -O-4 models by a coupled polyoxometalate/CdS photocatalytic system

Mo Zhang, Zheng Li, Yeqin Feng, Xing Xin, Guo-Yu Yang* and Hongjin Lv*

