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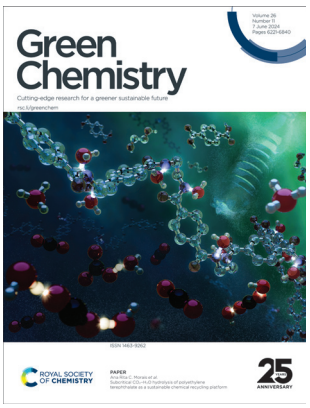

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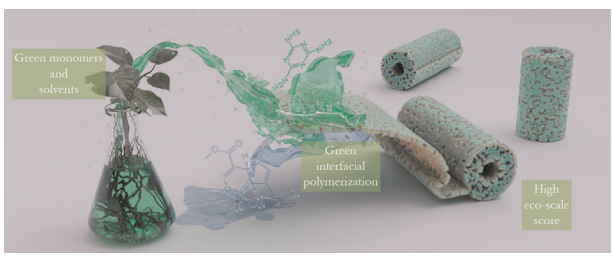
6237

Alternative materials for interfacial polymerization: recent approaches for greener membranes

Adi Ben-Zvi, Usman Taqui Syed, Guy Z. Ramon* and Suzana Nunes



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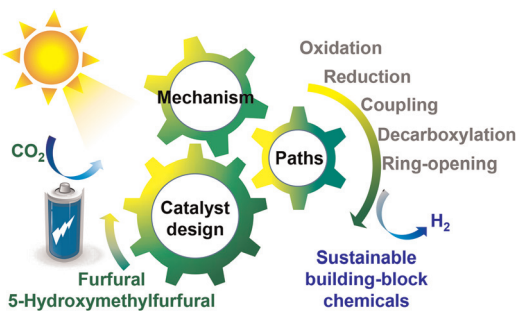
Sunlight-driven photocatalytic conversion of furfural and its derivatives

Qizhao Zhang, Bang Gu and Wenhao Fang*



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Towards a sustainable tomorrow: advancing green practices in organic chemistry

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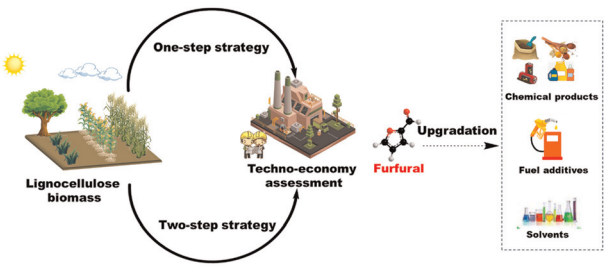
Yuqi Bao, Zicheng Du, Xiaoying Liu, Hui Liu, Jinsong Tang, Chengrong Qin, Chen Liang, Caoxing Huang and Shuangquan Yao*



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Recent advances and perspectives of practical modifications of vanadium redox flow battery electrodes

Lin Li, Xingrong Chen, Zemin Feng,* Yingqiao Jiang, Lei Dai, Jing Zhu,* Yongguang Liu, Ling Wang and Zhangxing He*

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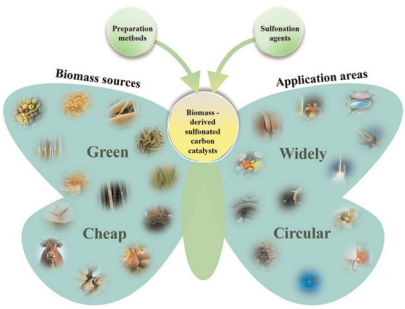
Biomass derived sulfonated carbon catalysts: efficient catalysts for green chemistry

Shangkun Zhu, Jian Ke, Xiang Li, Zixuan Zheng, Ruixin Guo* and Jianqiu Chen*



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TUTORIAL REVIEWS

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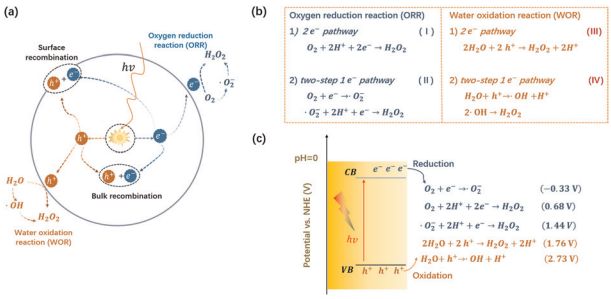

Polymer photocatalysts for photocatalytic hydrogen peroxide production

Shunhang Wei, Shufang Chang, Huili Li, Zebo Fang,* Lei Zhu* and Yuxi Xu*

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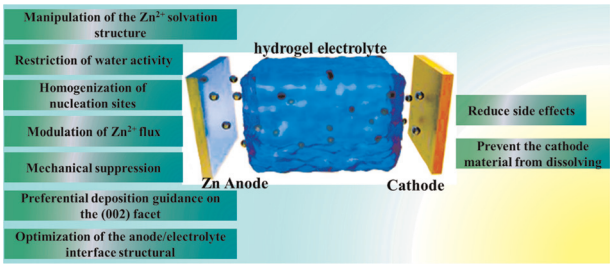

Hydrogel-stabilized zinc ion batteries: progress and outlook

Le Li, Shaofeng Jia, Shi Yue, Conghui Wang, Hengwei Qiu, Yongqiang Ji, Minghui Cao* and Dan Zhang*

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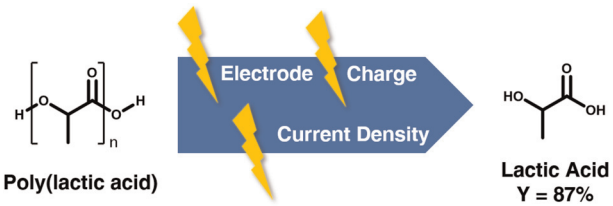

Electrochemical depolymerisation of polylactic acid

Sonja D. Mürtz, Marcus S. Lehnertz, Justus Kümper, Eike Häger, Alexandra Markus, Tabea Becker, Sonja Herres-Pawlis and Regina Palkovits*

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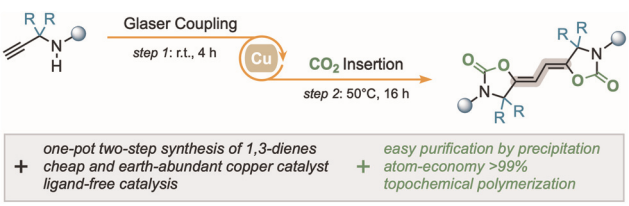

Sequential Glaser reaction – diastereoselective cyclocarboxylation of propargylamines with CO_2: a green catalytic access to bis-oxazolidinonedienes and their topochemical polymerization

Francesco Mele, Ana Maria Constantin, Filippo Sacchelli, Debora Schiroli, Paolo Pio Mazzeo, Giovanni Maestri, Elena Motti, Raimondo Maggi, Raffaella Mancuso, Bartolo Gabriele, Francesco Pancrazzi* and Nicola Della Ca'*

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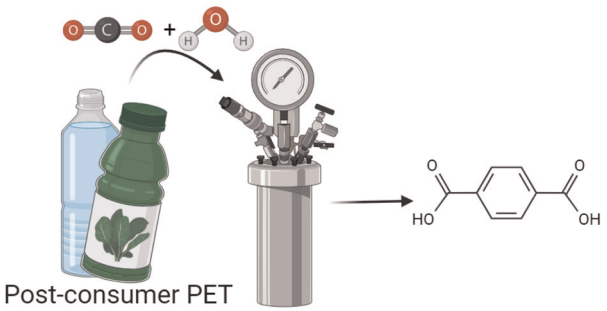
Subcritical CO_2–H_2O hydrolysis of polyethylene terephthalate as a sustainable chemical recycling platform

Dacosta Osei, Lakshmiprasad Gurrala, Aria Sheldon, Jackson Mayuga, Clarissa Lincoln, Nicholas A. Rorrer and Ana Rita C. Morais*



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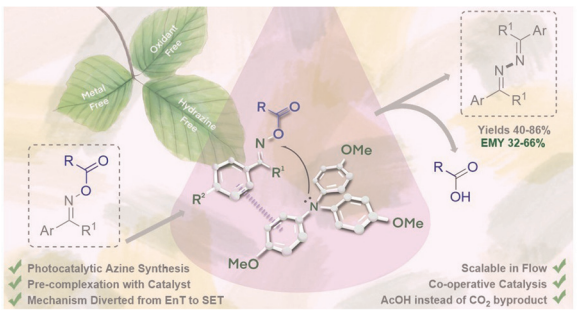
A hydrazine-free photoredox catalytic synthesis of azines by reductive activation of readily available oxime esters

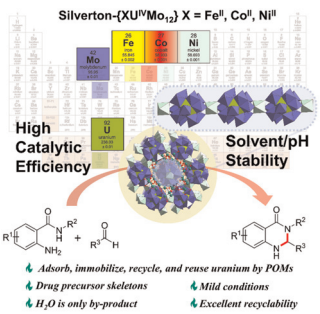
Jonathan Schütte, Daria Corsi, Wolfgang Haumer, Simon Schmid, Jonas Žurauskas and Joshua P. Barham*



6454

Highly-stable Silverton-type U^{IV}-containing polyoxomolybdate frameworks for the heterogeneous catalytic synthesis of quinazolinones

Ke Li, Yufeng Liu, Guoping Yang,* Zhijian Zheng, Xiaoling Lin, Zhibin Zhang, Shujun Li, Yunhai Liu* and Yongge Wei*



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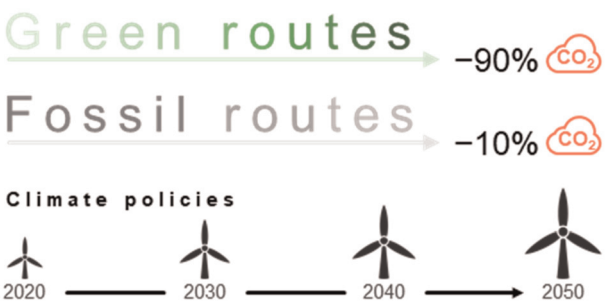
Integrating climate policies in the sustainability analysis of green chemicals

Abhinandan Nabera, Antonio José Martín, Robert Istrate, Javier Pérez-Ramírez* and Gonzalo Guillén-Gosálbez*



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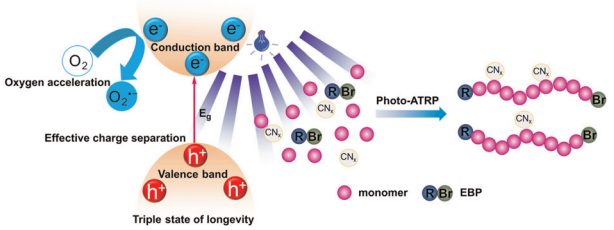
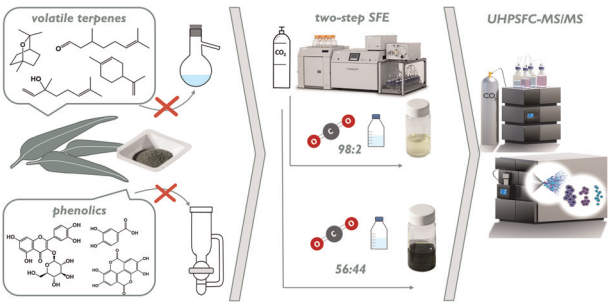


Long-lived triplet state carbon nitride (urea-CN_x) catalyzed metal-free photo-ATRP with oxygen acceleration

Chen Wang, Bo Hu, Xiaoyu Guo and Lin Lei*

6480



Comprehensive two-step supercritical fluid extraction for green isolation of volatiles and phenolic compounds from plant material

Veronika Pilařová, Kateřina Plachká, Diana Herbsová, Štefan Kosturko, Frantisek Svec and Lucie Nováková*

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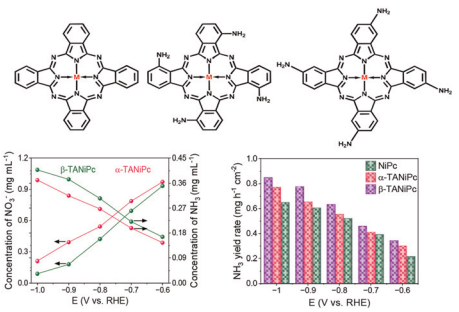

Fuel from waste: electrosynthesizing ammonia directly from agricultural digestate through ligand isomerization

Rahul Mahadeo Mendhe, Ritwik Mondal, Alagar Raja Kottaichamy, Akshay Haridas, Harish Makri Nimbegondi Kotresh, Chathakudath Prabhakaran Vinod, Ravikumar Thimmappa and Musthafa Ottakam Thotiyl*

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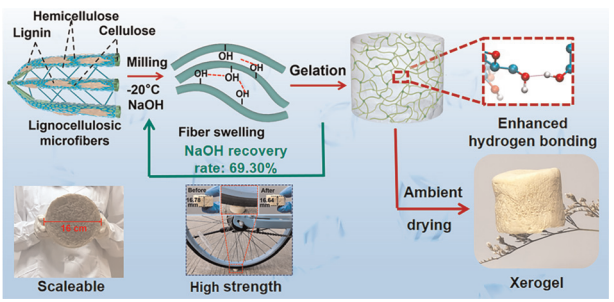

Facile preparation of lignocellulosic xerogels by alkali freezing and ambient drying

Qiaoling Huang, Zerong Li, Jialong Hu, Wei Wang and Wei Li*

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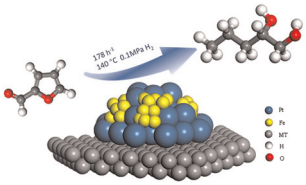
Selective hydrogenolysis of furfural to 1,2-pentanediol over a Pt–Fe/MT catalyst under mild conditions

Chen Cao, Weixiang Guan, Qiaoyun Liu, Lin Li, Yang Su, Fei Liu,* Aiqin Wang* and Tao Zhang*



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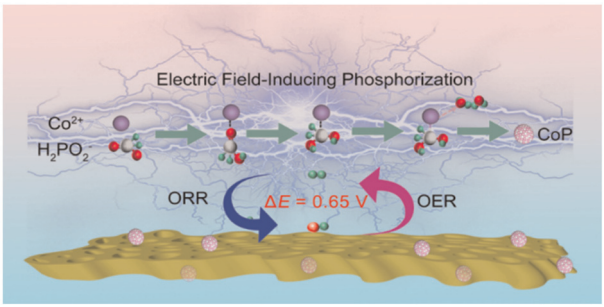
Electric field-induced phosphorization to prepare CoP@Biochar composites for efficient bifunctional oxygen electrocatalysis

Xianli Wu, Ting Zhou, Teng Teng, Shuling Liu, Bangan Lu, Sehrish Mehdi, Yanyan Liu,* Jianchun Jiang, Yongfeng Wang and Baojun Li



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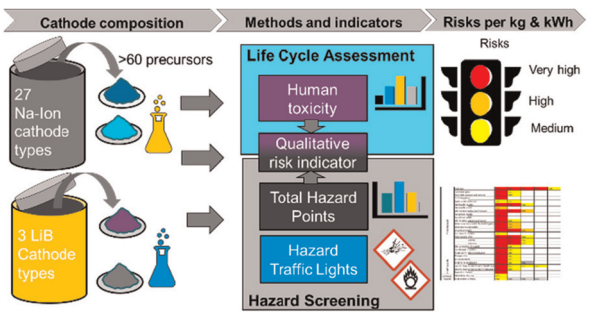
Prospective hazard and toxicity screening of sodium-ion battery cathode materials

Manuel Baumann,* Jens F. Peters, Marcel Häringer, Marius Schmidt, Luca Schneider, Werner Bauer, Joachim R. Binder and Marcel Weil



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Electrochemically driven green synthesis to unlock sustainable routes to β-keto spirolactones

Ian MacLean, Montaña J. García, Silvia Cabrera,* Leyre Marzo* and José Alemán*

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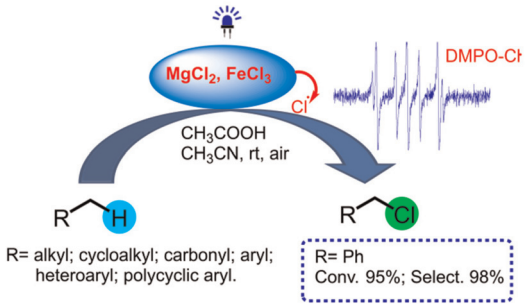
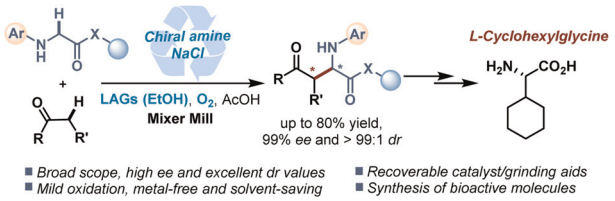


Visible light-induced $FeCl_3$-catalyzed chlorination of C–H bonds with $MgCl_2$

Jing Huang, Yidong Liu, Xia Tian, Shao-Fei Ni,* Shen Li, Zhan-Hui Zhang,* Dong Li and Shouxin Liu*

6570



Ethanol-assisted mechanochemical asymmetric cross-dehydrogenative coupling reaction with recoverable chiral amine/NaCl for accessing chiral α-alkyl α-glycine derivatives

Jingbo Yu,* Hong Chen, Ziwen Zhang, Yuxin Fang, Tao Ying and Weike Su

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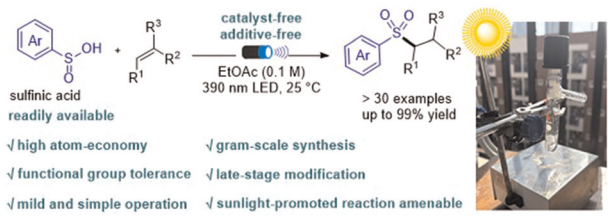

Light-promoted photocatalyst-free and redox-neutral hydrosulfonylation of unactivated alkenes using sulfinic acid

Yibo Song, Cheng Li, Xueyuan Hu,* Hongdie Zhang, Yujian Mao, Xiachang Wang, Chen Wang, Lihong Hu* and Jianming Yan*

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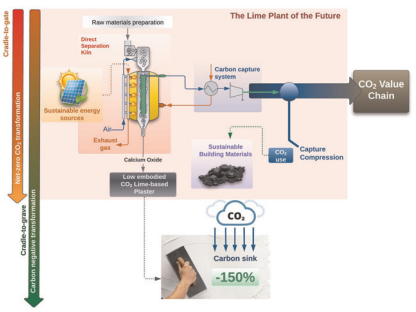

From quarry to carbon sink: process-based LCA modelling of lime-based construction materials for net-zero and carbon-negative transformation

Agustin Laveglia,* Neven Ukrainczyk, Nele De Belie and Eddie Koenders

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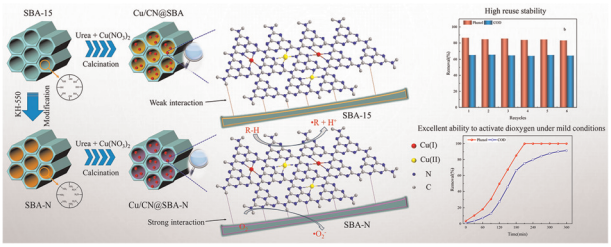
In situ growth of an ultrathin Cu/g-C_3N_4 coating over SBA-15 for catalytic wet air oxidation of pollutants under extremely mild conditions

Chao Yuan, Yuan Zhang, Zhiyuan Zong, Shenghui Zhou, Hongyou Cui* and Hongzi Tan*



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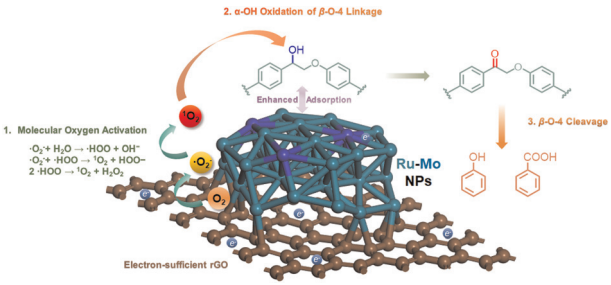
Boosting the catalytic performance of Ru nanoparticles in the cleavage of β-O-4 linkages in lignin by doping Mo

Puyi Lei, Jiali Zhang, Wenzhuo Shen, Min Zhong and Shouwu Guo*



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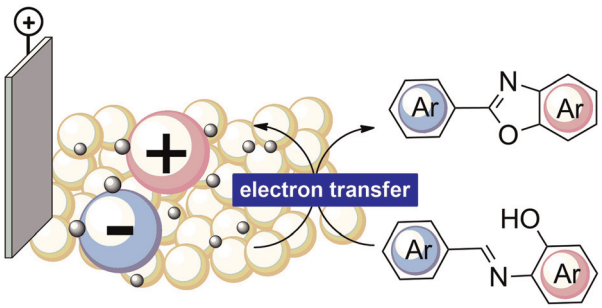
Introducing the use of a recyclable solid electrolyte for waste minimization in electrosynthesis: preparation of 2-aryl-benzoxazoles under flow conditions

Francesco Ferlin,* Federica Valentini, Filippo Campana and Luigi Vaccaro*



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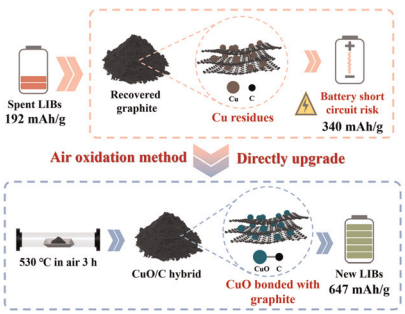
Directly upgrading spent graphite anodes to stable CuO/C anodes by utilizing inherent Cu impurities from spent lithium-ion batteries

Kechun Chen, Haoxuan Yu, Meiting Huang, Zhihao Wang, Yifeng Li, Lei Zhou, Liming Yang,* Yufa Feng, Liang Chen,* Lihua Wang, Longlu Wang, Chenxi Xu, Penghui Shao and Xubiao Luo*



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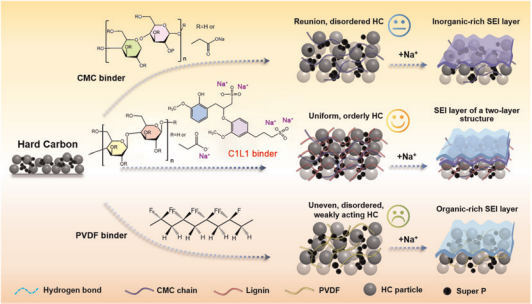

Green biomass: the impact of high-adhesion and well-dispersed binders on the sodium storage performance and interfacial interaction of hard carbon anodes

Jiaqi Jiao, Conghua Yi,* Xueqing Qiu,* Dongjie Yang, Fangbao Fu and Weifeng Liu

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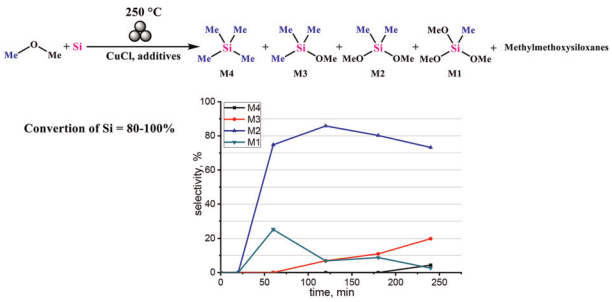

From silicon to silicones without dimethyldichlorosilane: direct green mechanochemical synthesis of methylmethoxysilanes from silicon and dimethyl ether

I. N. Kryzhanovskii, M. N. Temnikov,* A. A. Anisimov, A. K. Ratnikov, I. V. Frank, A. V. Naumkin, S. M. Chistovalov and A. M. Muzafarov

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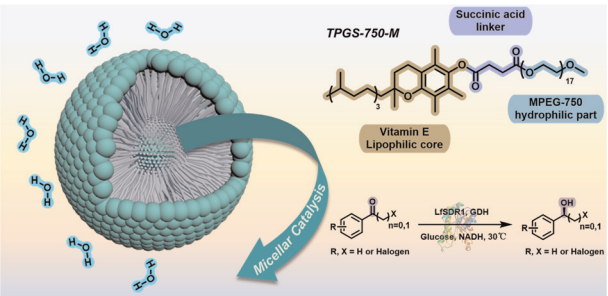

Enzymatic reduction of halogenated aryl ketones in an aqueous micellar solution with enhanced catalytic performance

Yunting Liu, Jiajing Yan, Quan Yuan, Li Ma, Liya Zhou, Ying He, Guanhua Liu, Xiaoyang Yue* and Yanjun Jiang*

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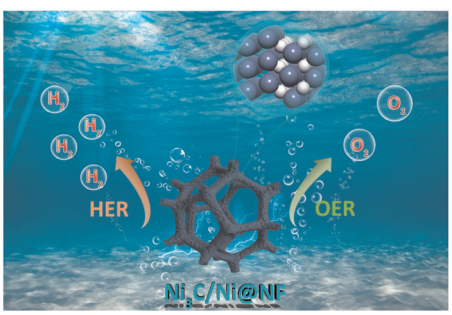

Uniform nodule-like Ni_3C/Ni heterostructure templated by metal–organic frameworks for high-performance overall water splitting

Shumin Wang, Yi Zhang, Xiaoyang Deng, Zizai Ma, Jinping Li and Xiaoguang Wang*

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PAPERS

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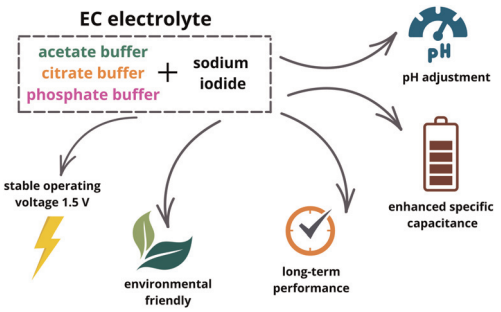
Effect of a buffer/iodide electrolyte on the performance of electrochemical capacitors

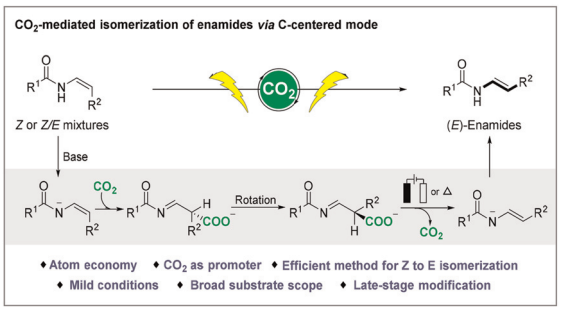
Amelia Klimek, Maciej Tobis and Elzbieta Frackowiak*



6696

CO_2-mediated isomerization of enamides

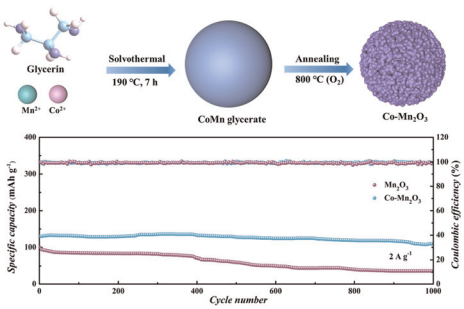
Guoqing Yang, Jingpei Jia, Zile Zhu and Youai Qiu*



6704

Cobalt-doped manganese(III) oxide cathode materials with enhanced electrochemical performance for aqueous zinc-ion batteries

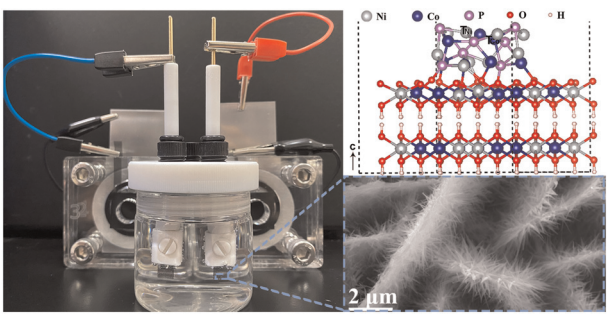
Zixiang Zhou, Jianbo Tong,* Jiale Guo, Shaofeng Guo, Shuhan Liu, Zhipeng Qin, Muxuan Luo, Chao Wang and Shuling Liu*



6713

NiCoP@CoNi-LDH/SSM as a multifunctional catalyst for high-efficiency water splitting and ultra-long-life rechargeable zinc-air batteries

Juan Jian, Zhuo Wang, Yu Qiao, Shuang Gao, Meiting Wang, Limin Chang,* Hairui Wang* and Ping Nie*



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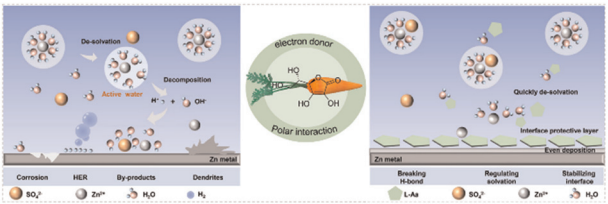
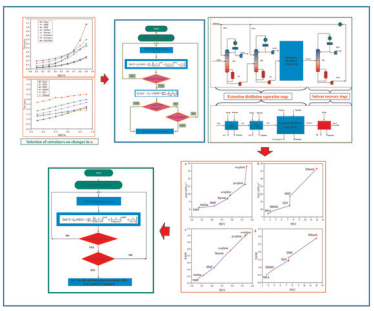
6723



Bio-inspired hydroxyl-rich electrolyte additive for highly reversible aqueous Zn-ion batteries with strong coordination chemistry

Jinlong Zhang, Qing Wu, Song Yang, Fusheng Luo, Yue Li, Yanhui Zhang, Kui Chen, Jun Huang,* Haibo Xie* and Yiwang Chen*

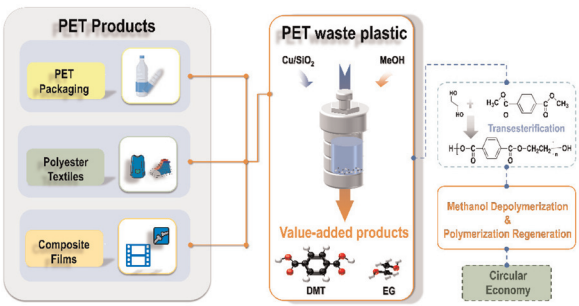
6735



Heuristic process prediction model for screening optimal green entrainers based on TAC and LCA impacts utilizing PSE concepts

Qinggang Xu, Yangyang Wang, Kexin Yin, Hongwei Xu, Jianguang Qi, Peizhe Cui, Zhaoyou Zhu, Yinglong Wang,* Limei Zhong and Yixin Ma

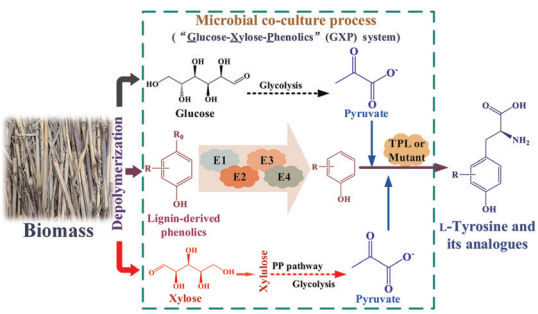
6748



Copper-supported catalysts for sustainable PET depolymerization: a cost-effective approach towards dimethyl terephthalate (DMT) production

Yitian Zhang, Jie Gao, Chao Jiang, Gang Luo, Jiajun Fan, James H. Clark and Shicheng Zhang*

6760



Full use of lignocellulosic biomass for efficient synthesis of L-tyrosine and its analogues by engineering microbial consortia

Mingtao Zhao, Xiaofeng Wu, Yankai Tao and Yi Xiao*

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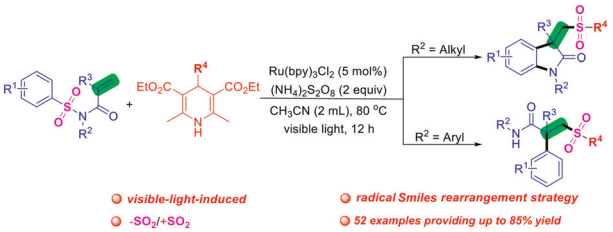
6774

A radical Smiles rearrangement difunctionalization of activated alkenes *via* desulfonylation and insertion of sulfur dioxide relay strategy

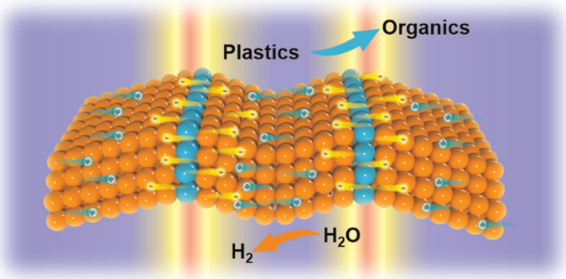
Si-Wei Tian, Zhen-Tao Luo, Bi-Quan Xiong, Ke-Wen Tang, Peng-Fei Huang* and Yu Liu*



6779

Enhancing the internal electric field *via* twinning for boosting photocatalytic plastic reformation and H_2 production

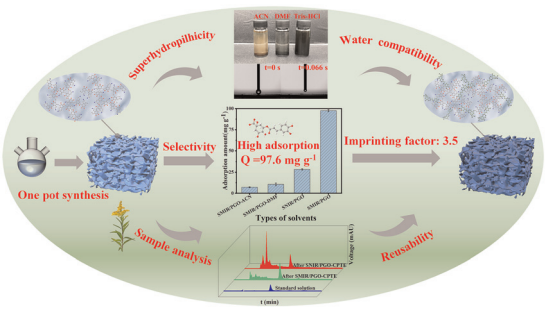
Erling Zhao, Pengfei Yin, Kun Du, Ning Lan, Quanlu Wang, Jiaxin Guo, Min Wang and Tao Ling*



6787

Green synthesis of water-compatible molecularly imprinted resin on graphene oxide for highly selective extraction of chlorogenic acid in aqueous systems

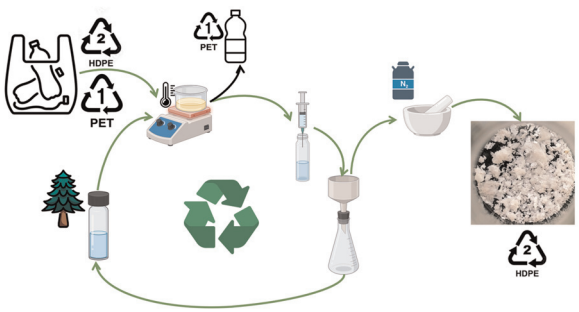
Yanan Yuan, Yanfei Zhang, Zhiqiang Wang and Hongyuan Yan*



6799

Greening the physical recycling of HDPE: dissolution precipitation with natural solvents

Sofia C. Aparício, Pedro M. Castro, Bernardo D. Ribeiro and Isabel M. Marrucho*



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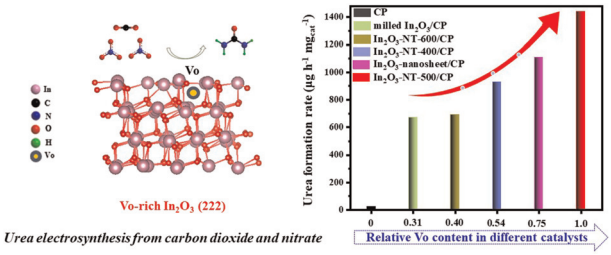
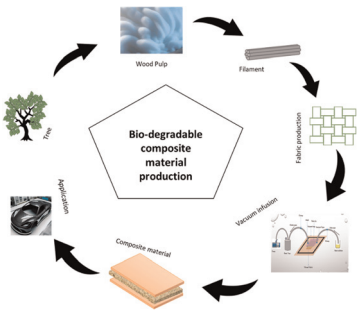
6812



Durable and efficient urea electrosynthesis using carbon dioxide and nitrate over defect-rich In_2O_3 nanotubes

Hongjun Fang, Chen-Han Kuo, Hongsheng Yang, Ze Wang, Xinzhen Feng, Weijie Ji* and Chak-Tong Au

6822



Exploring the potential of regenerated lonicell fiber composites: a sustainable alternative for high-strength applications

Mahyar Fazeli,* Shariful Islam, Hossein Baniasadi, Roozbeh Abidnejad, Inge Schlapp-Hackl, Michael Hummel and Juha Lipponen

CORRECTIONS

6836

Correction: Ethanol-assisted mechanochemical asymmetric cross-dehydrogenative coupling reaction with recoverable chiral amine/NaCl for accessing chiral α-alkyl α-glycine derivatives

Jingbo Yu,* Hong Chen, Ziwen Zhang, Yuxin Fang, Tao Ying and Weike Su

6838

Correction: Retrosynthesis from transforms to predictive sustainable chemistry and nanotechnology: a brief tutorial review

Alicja Mikolajczyk,* Uladzislau Zhdan, Sylvain Antoniotti, Adam Smolinski, Karolina Jagiello, Piotr Skurski, Moussab Harb, Tomasz Puzyn and Jaroslaw Polanski*

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