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IN THIS ISSUE

ISSN 1463-9262 CODEN GRCHFJ 25(24) 10103–10696 (2023)

Cover
See Jean-Philippe Tessonnier, Luke T. Roling *et al.*, pp. 10387–10397.

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Inside cover
See Yun Jeong Hwang, Jonggeol Na *et al.*, pp. 10398–10414.

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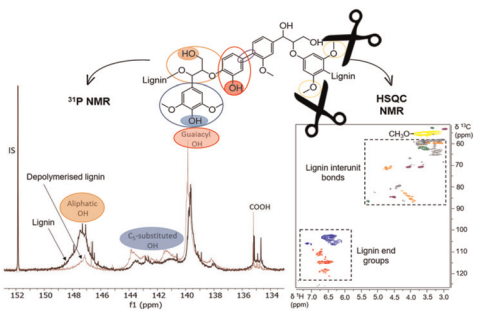
TUTORIAL REVIEWS

10117

Selective demethylation reactions of biomass-derived aromatic ether polymers for bio-based lignin chemicals

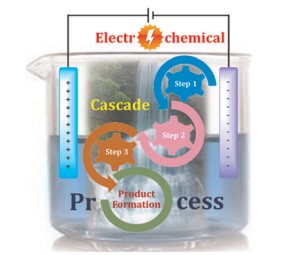
Florian M. Harth, Brigita Hočevar, Tina Ročnik Kozmelj, Edita Jasiukaitytė-Grojzdek, Jana Blüm, Michael Fiedel, Blaž Likozar* and Miha Grilc*



10144

Electrochemical cascade reactions: an account of recent developments for this modern strategic tool in the arsenal of chemical synthesis

Manoj Kumar Yadav and Sushobhan Chowdhury*



Electrochemical Cascade process
Electricity as green catalyst-oxidant-mediator!!
Integrated reaction steps!! Shorter reaction time!!
Minimal chemical waste!!

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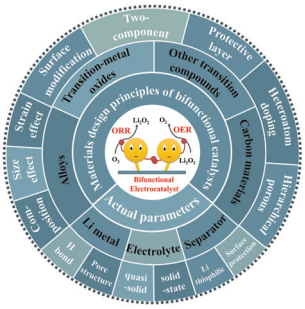
TUTORIAL REVIEWS

10182

Advanced nano-bifunctional electrocatalysts in Li–air batteries for high coulombic efficiency

Jinyu Zhao, Rajesh Pathak,* Zhenxin Zhao, Xu Chen, Madan Bahadur Saud, Hansheng Li, Fan Wu, Quinn Qiao, Jeffrey W. Elam* and Xiaomin Wang*



10209

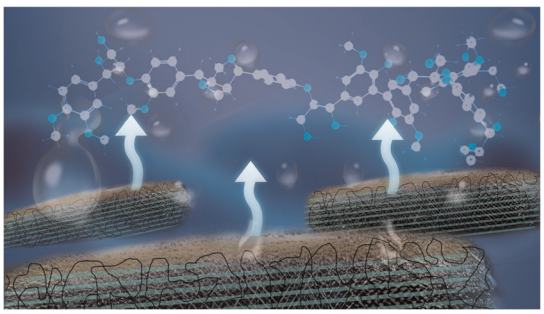
Molten salt technique for the synthesis of carbon-based materials for supercapacitors

Yu Yang, Yunping Ma, Congcong Lu, Songjun Li* and Maiyong Zhu*

10235

The dawn of aqueous deep eutectic solvents for lignin extraction

Mingyang Hu, Yanyan Yu, Xiaoyan Li, Xinyu Wang and Yun Liu*



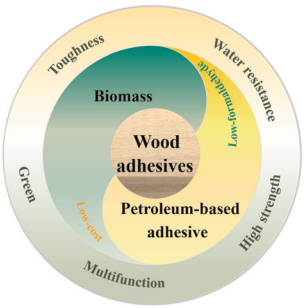
10263

Salt-assisted synthesis of advanced carbon-based materials for energy-related applications

Maiyong Zhu,* Yu Yang and Yunping Ma

CRITICAL REVIEWS

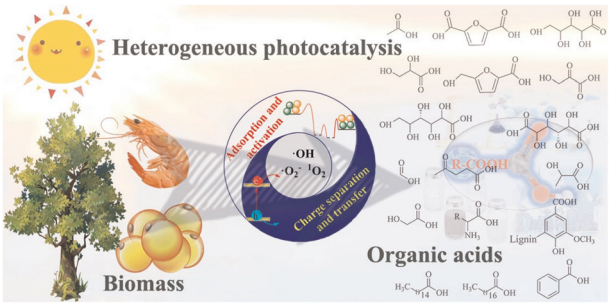
10304



Recent progress of biomass in conventional wood adhesives: a review

Wei Tian, Xiaoyi Wang, Yuhang Ye, Weijie Wu, Yuli Wang, Shaohua Jiang, Jiangbo Wang and Xiaoshuai Han*

10338

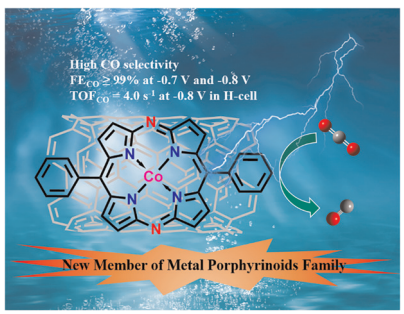


Heterogeneous photocatalysis for biomass valorization to organic acids

Tengyu Liu, Jinshu Huang, Jie Li, Keping Wang, Zhenyan Guo, Hongguo Wu,* Song Yang and Hu Li*

COMMUNICATIONS

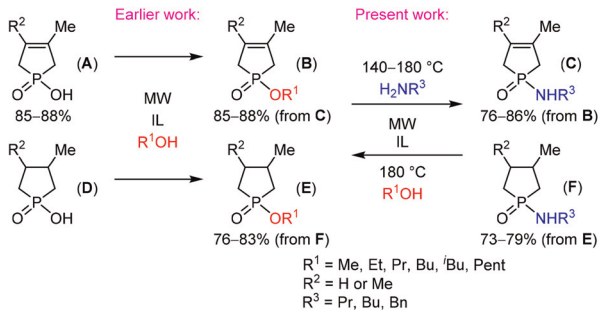
10366



Cobalt macrocyclic complex-catalyzed selective electroreduction of CO_2 to CO

Wen-Jun Xie, Jin-Mei Chen, Zhi-Wen Yang and Liang-Nian He*

10372



Microwave-assisted, ionic liquid-catalyzed aminolysis and alcoholysis of phosphinic derivatives: the interconversion of phosphinates and phosphinic amides

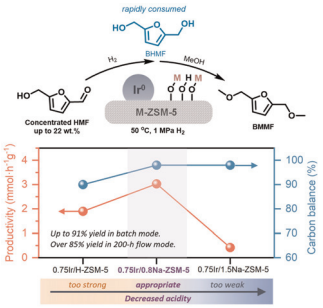
György Keglevich,* Nikoletta Harsági and Sarolta Szilágyi

COMMUNICATIONS

10381

Towards scalable reductive etherification of 5-hydroxymethyl-furfural through iridium-zeolite-based bifunctional catalysis

Zehui Sun, Mugeng Chen, Kaizhi Wang, Chen Chen, Jiachen Fei, Wendi Guo, Conglin Zhu, Heyong He, Yongmei Liu* and Yong Cao*

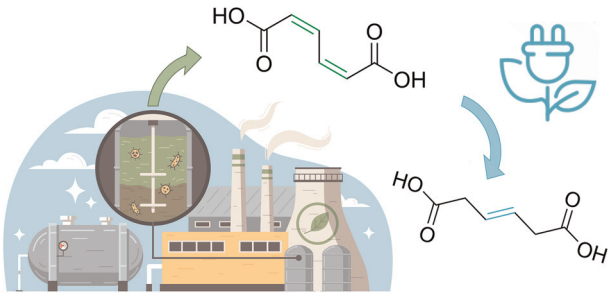


PAPERS

10387

Local reactivity descriptors to decipher the electrochemical hydrogenation of unsaturated carboxylic acids

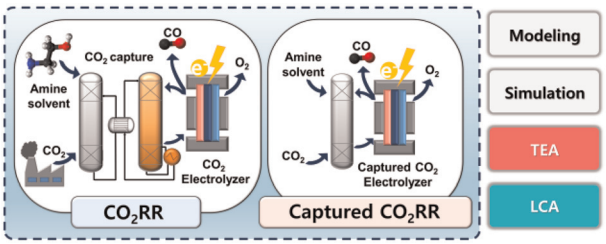
Marco Nazareno Dell'Anna, Geet Gupta, Prathamesh T. Prabhu, Ting-Hung Chu, Luke T. Roling* and Jean-Philippe Tessonnier*



10398

Techno-economic analysis and life-cycle assessment of the electrochemical conversion process with captured CO_2 in an amine-based solvent

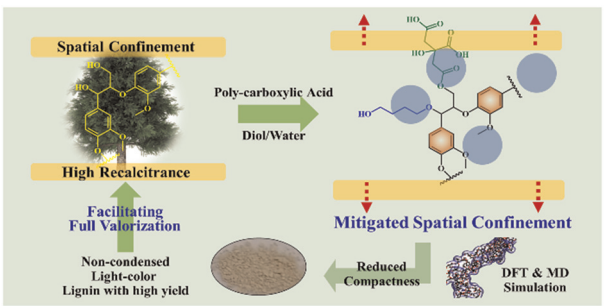
Suhyun Lee, Woong Choi, Jae Hyung Kim, Sohyeon Park, Yun Jeong Hwang* and Jonggeol Na*



10415

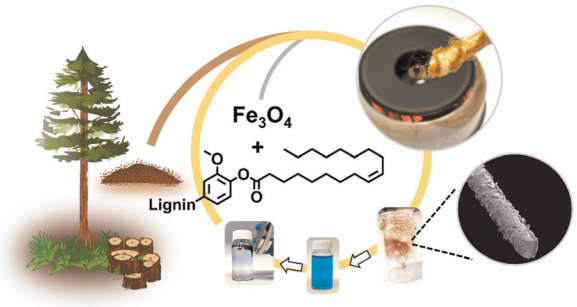
Synergizing mitigated spatial confinement and chemical stabilization of lignin facilitates full utilization of lignocellulose

Jiayi Zheng, Liheng Chen,* Xueqing Qiu,* Shirong Sun and Xuliang Lin



PAPERS

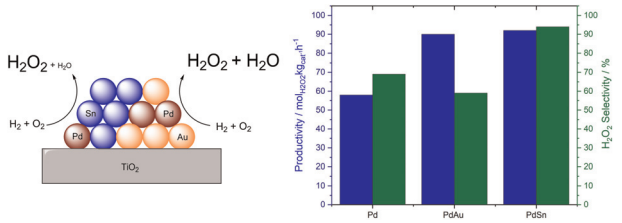
10424



Mechanically recyclable melt-spun fibers from lignin esters and iron oxide nanoparticles: towards circular lignin materials

Unnimaya Thalakkale Veettil, Adrian Moreno, Alberto J. Huertas-Alonso, Mohammad Morsali, Ievgen V. Pylypchuk, Li-Yang Liu and Mika H. Sipponen*

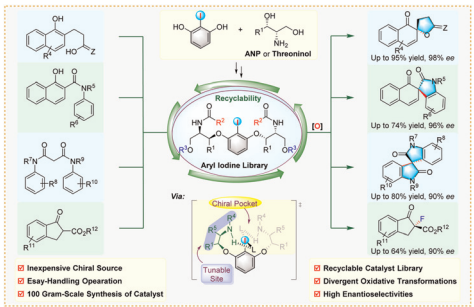
10436



A comparative study of palladium-gold and palladium-tin catalysts in the direct synthesis of H_2O_2

Dávid Kovačič, Richard J. Lewis,* Caitlin M. Crombie, David J. Morgan, Thomas E. Davies, Ángeles López-Martín, Tian Qin, Christopher S. Allen, Jennifer. K. Edwards, Liwei Chen, Martin Skov Skjøth-Rasmussen, Xi Liu* and Graham J. Hutchings*

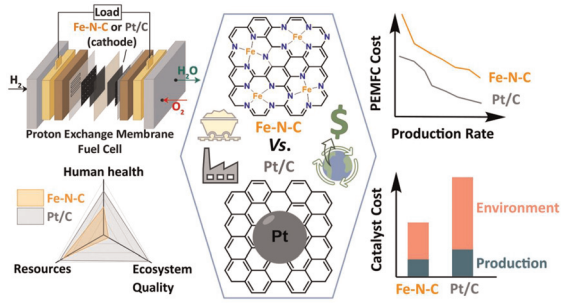
10447



New conformationally flexible and recyclable aryl iodine catalysts from an inexpensive chiral source for asymmetric oxidations

Hai-Jie Zhou, Yi-Ping Yao, Tonghui Zhang, Biao Chen, Xu Wang, Hang Zhao, Jie Zeng, Jian-Ai Chen, Xiao Xiao* and Fen-Er Chen*

10458



Comparative techno-economic and life-cycle analysis of precious *versus* non-precious metal electrocatalysts: the case of PEM fuel cell cathodes

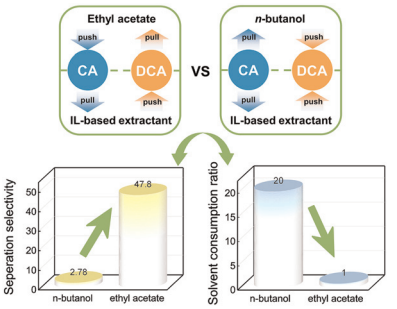
Angus Pedersen, Jinil Pandya, Grazia Leonzio, Alexey Serov, Andrea Bernardi, Ifan E. L. Stephens, Maria-Magdalena Titirici, Camille Petit and Benoît Chachuat*

PAPERS

10472

A synergistic 'push and pull' ionic liquid biphasic system for enhanced extraction separation of cholic acid and deoxycholic acid

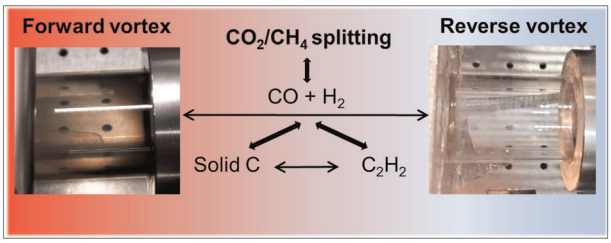
Zexiang Ding, Fanding Rong, Yifeng Cao,* Yuanyuan Shen, Liu Yang, Lihang Chen, Qiwei Yang, Zhiguo Zhang, Qilong Ren and Zongbi Bao*



10485

Avoiding solid carbon deposition in plasma-based dry reforming of methane

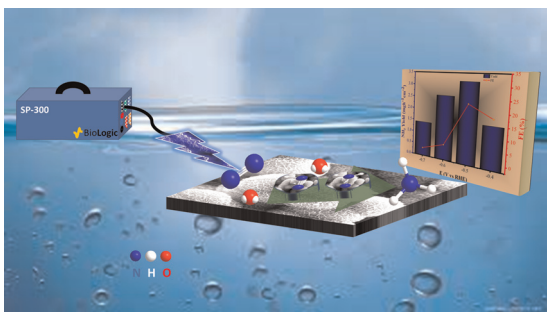
Omar Biondo,* Cas F. A. M. van Deursen, Ashley Hughes, Alex van de Steeg, Waldo Bongers, M. C. M. van de Sanden, Gerard van Rooij and Annemie Bogaerts



10498

One-step synthesized Nb_2O_{5-y}-decorated spinel-type $(Ni,V,Mn)_3O_{4-x}$ nanoflowers for boosting electrocatalytic reduction of nitrogen into ammonia

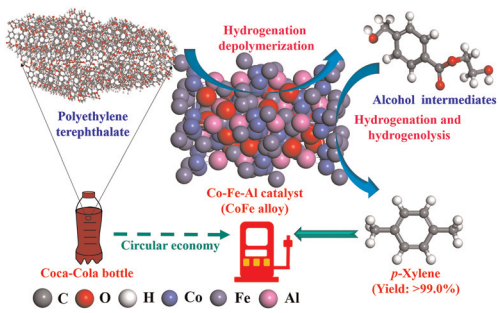
Tadele Negash Gemeda, Dong-Hau Kuo* and Quoc-Nam Ha



10513

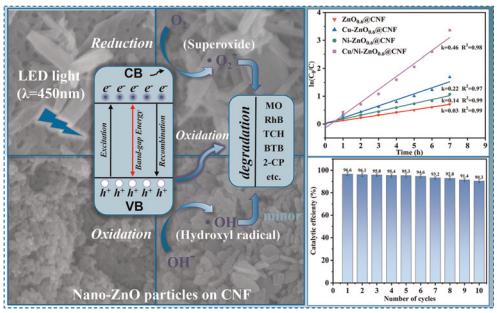
The quantitative conversion of polyethylene terephthalate (PET) and Coca-Cola bottles to *p*-xylene over Co-based catalysts with tailored activities for deoxygenation and hydrogenation

Yuewen Shao, Mengjiao Fan, Kai Sun, Guoming Gao, Chao Li, Dianqiang Li, Yuchen Jiang, Lijun Zhang, Shu Zhang and Xun Hu*



PAPERS

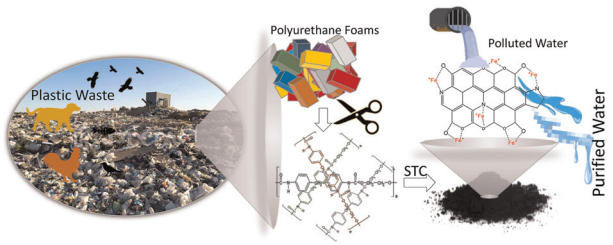
10530



Cu and Ni dual-doped ZnO nanostructures templated by cellulose nanofibrils for the boosted visible-light photocatalytic degradation of wastewater pollutants

Jiangang Yu,* Pingnian Bao, Jia Liu, Yi Jin, Jie Li and Yanwen Lv*

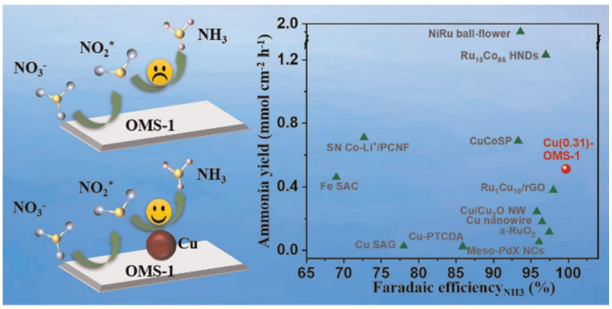
10538



A sustainable waste plastic valorisation: conversion of discarded polyurethane into an active micro-cleaner using a DES system

Ashok Shrishail Maraddi,
Manohara Halanur Mruthunjayappa, Smitha V. Kamath, Glenita D'Souza, Hyeonseok Yoon* and S. K. Nataraj*

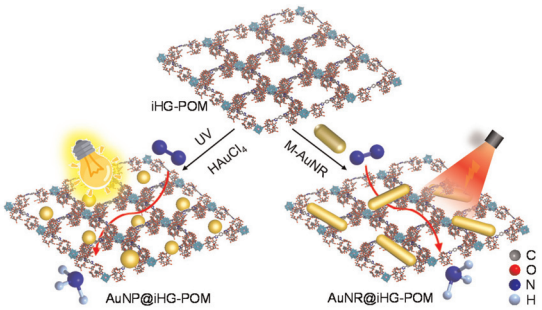
10549



Near 100% selectivity for ammonia synthesis at a high current density by promoting nitrate protonation on the copper dispersed todorokite-type manganese oxide

Shijia Li, Chuqian Xiao, Rongzhen Chen, Mengyi Wang, Yuting Ma, Kaiwen Luo, Muyao Shen, Yihua Zhu, Yuhang Li* and Chunzhong Li*

10556



Gold nanocrystal-loaded 2D supramolecular network for plasmon-enhanced nitrogen fixation

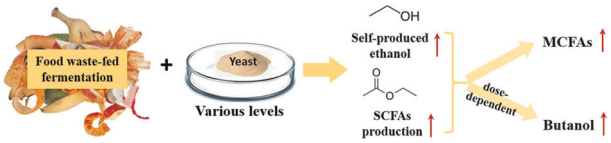
Gengxin Wang, Bingjin Li, Bao Li* and Lixin Wu*

PAPERS

10567

Converting food waste into high-value medium chain fatty acids and long chain alcohols *via* chain elongation with an internally produced electron donor

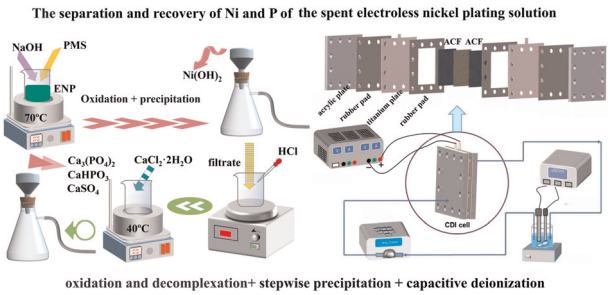
Lan Wu, Wei Wei,* Jin Qian, Xueming Chen and Bing-Jie Ni*



10576

Integrating multi-method approaches for the green separation and retrieval of nickel and phosphorus from spent electroless nickel plating solutions

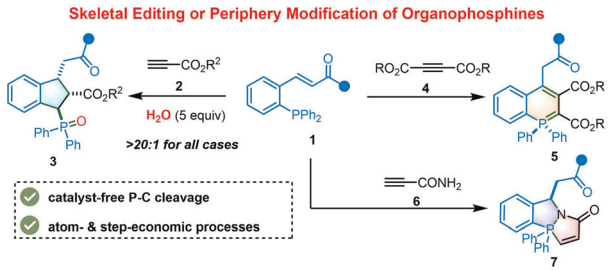
Zhontian Dong, Zhiren Zhao, Fenghe Wang, Fengyun Wang* and Mingzhu Xia*



10587

Distinct reactivities of *ortho*-chalcone-substituted organophosphines with activated alkynes: skeletal editing or periphery modification

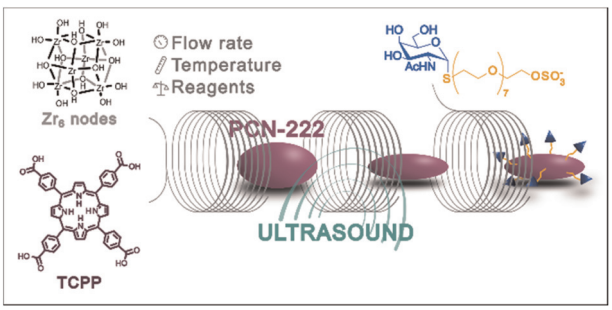
Chaoyang Li, Xinyue Niu, Wan Xu,* Zhanwei Bu, Wenjing Zhang* and Qilin Wang*



10596

Continuous flow synthesis of PCN-222 (MOF-545) with controlled size and morphology: a sustainable approach for efficient production

Alessio Zuliani,* M. Carmen Castillejos and Noureddine Khiar*



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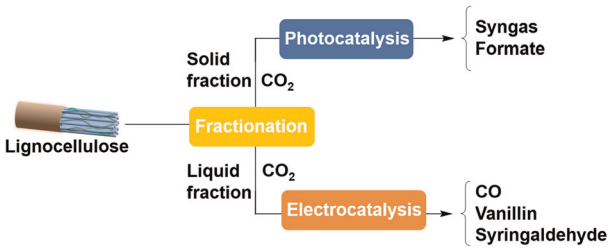
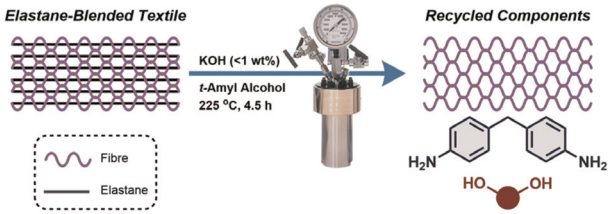
10611



Valorisation of lignocellulose and low concentration CO_2 using a fractionation–photocatalysis–electrolysis process

Santiago Rodríguez-Jiménez, Erwin Lam, Subhajit Bhattacharjee and Erwin Reisner*

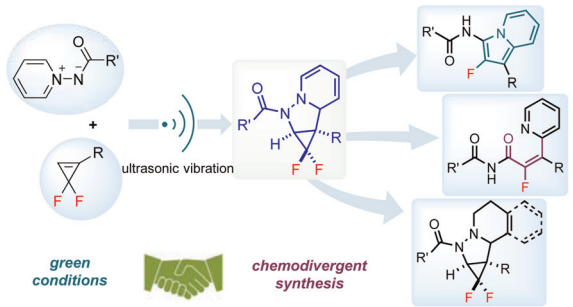
10622



Selective chemical disassembly of elastane fibres and polyurethane coatings in textiles

Martin B. Johansen, Bjarke S. Donslund, Martin L. Henriksen, Steffan K. Kristensen* and Troels Skrydstrup*

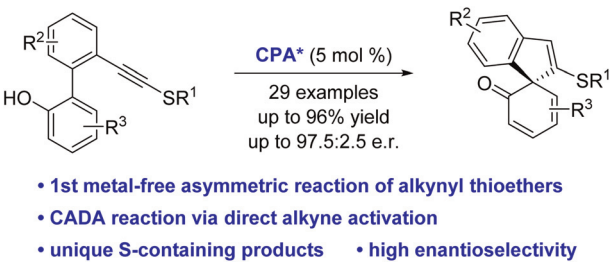
10630



Practical conversion of *gem*-difluorocyclopropenes for the chemodivergent assembly of fluorinated heterocyclic frameworks

Dongping Pan, Fu-Xiaomin Liu, Zhongyi Zeng, Junwei Ye, Ying Cai, Shengdong Wang, Zhi Zhou* and Wei Yi*

10638



Chiral Brønsted acid-catalyzed asymmetric dearomative spirocyclization of alkynyl thioethers

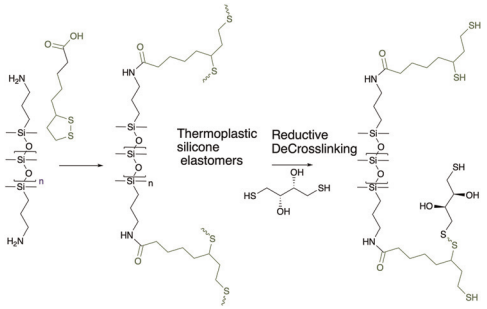
Xin-Yang Fan, Jia-Cheng Li, Ji-Jia Zhou,* Bo Zhou and Long-Wu Ye*

PAPERS

10644

Thermoplastic, redox recyclable silicone–lipoamide elastomers

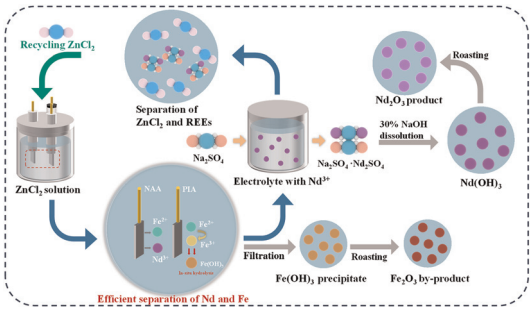
Muhammad Ebad Noman, Sijia Zheng, Haiyan Xue and Michael A. Brook*



10653

An acid-free process for selective REE recovery from spent NdFeB magnets by room-temperature electrolysis

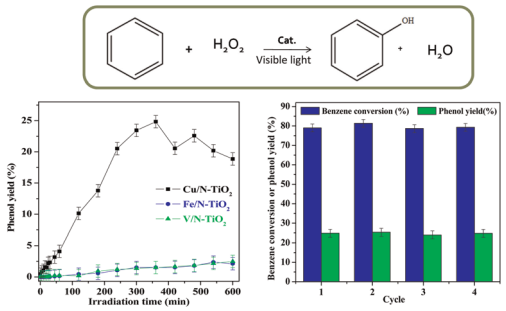
Zhang Zhihan, Wang Zhi, Wang Dong,* Min Rui, Xiao Wanhai, Lin Yong and Li Guobiao*



10664

Tuning the selectivity of visible light-driven hydroxylation of benzene to phenol by using Cu, Fe and V oxides supported on N-doped TiO_2

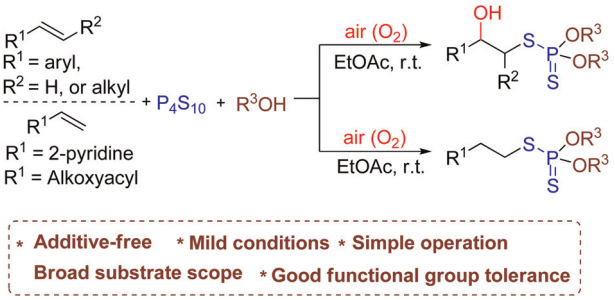
Antonietta Mancuso, Alessandro Gottuso, Francesco Parrino,* Rosaria Anna Picca, Vincenzo Venditto, Olga Sacco* and Vincenzo Vaiano



10678

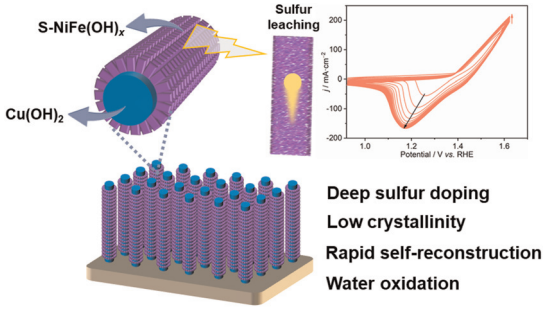
Additive-free aerobic oxidative difunctionalization of alkenes with P_4S_{10} and alcohols to access β-hydroxy phosphorodithioates

Chengming Qu, Yufen Lv, Jian Huang, Chao Ma, Huilan Yue, Wei Wei* and Dong Yi*



PAPERS

10684



Deep sulfur doping induces the rapid electrochemical self-reconstruction of Ni–Fe hydroxide to drive water oxidation

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CORRECTION

10693

Correction: Utilization of fluoroform for difluoromethylation in continuous flow: a concise synthesis of α-difluoromethyl-amino acids

Manuel Köckinger, Tania Ciaglia, Michael Bersier, Paul Hanselmann, Bernhard Gutmann* and C. Oliver Kappe*