

Green Chemistry

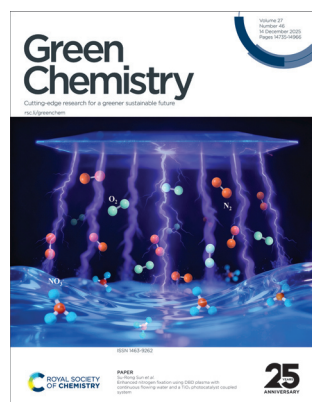
Cutting-edge research for a greener sustainable future

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Cover
See Su-Rong Sun *et al.*,
pp. 14807–14823.

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27, 14807.



Inside cover
See Feng Xu *et al.*,
pp. 14824–14837.

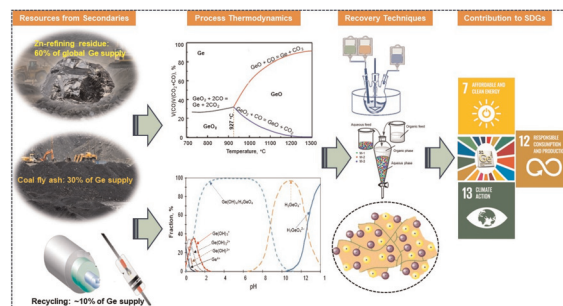
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27, 14824.

CRITICAL REVIEW

14744

Harnessing germanium from industrial residues and electronic waste for a sustainable energy future

Rajiv Ranjan Srivastava and Sadia Ilyas*

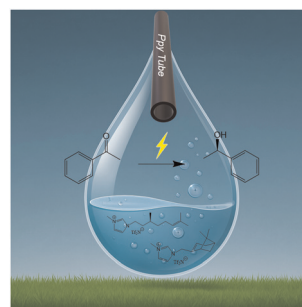


COMMUNICATIONS

14769

Tunable stereoselectivity in a wireless electrochemical microreactor using natural chiral ionic liquids

Sara Grecchi,* Andrea Mezzetta, Lorenzo Guazzelli and Serena Arnaboldi*



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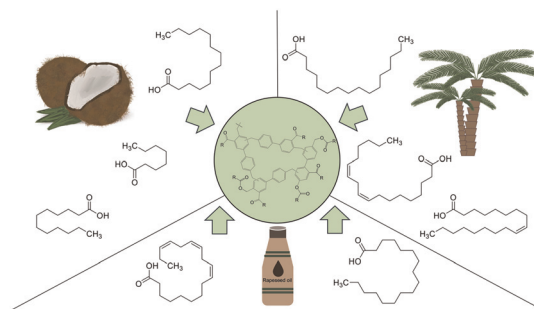
Fundamental questions
Elemental answers

COMMUNICATIONS

14776

Synthesis of hypercrosslinked polymers using coconut oil as a renewable, bio-based solvent

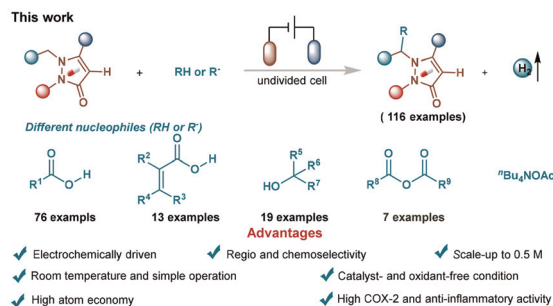
Paul Schweng, Anastasiia Naryshkina, Alexander Blocher and Robert T. Woodward*



14783

Site-selective electrochemical C(sp³)–H late-stage functionalization of pyrazolones

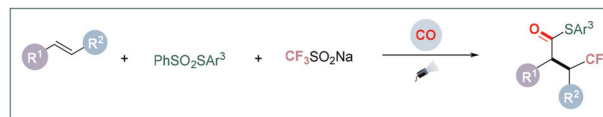
Jing-Yi Zhang, Ming-Han Li, Yu-Shun Cui, Ying Yang, Miao Lai, Zi-Xun Gao, Lin-Yu Zheng, Si-Ao Lu, Bin-Tao Liu, Fang-Ling Lu* and Yu-Lin Feng*



14792

Photoinduced carbonylative synthesis of β-trifluoromethylated thioesters through 1,2-trifluoromethylation and carbonylation of alkenes

Ren-Guan Miao, Zhi-Peng Bao, Yuanrui Wang, Chang-Sheng Kuai and Xiao-Feng Wu*

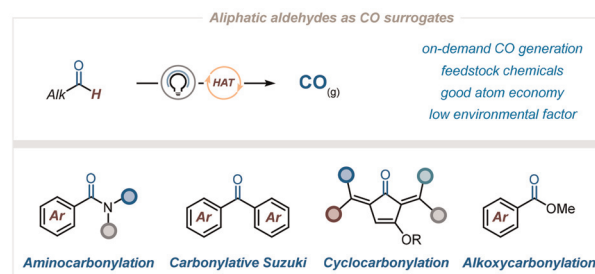


PAPERS

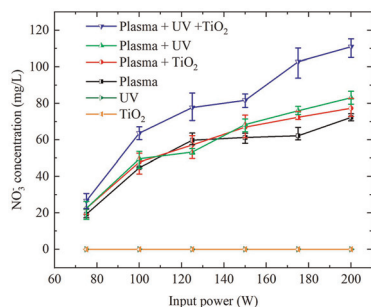
14799

Aliphatic aldehydes as CO surrogates via photocatalyzed hydrogen atom transfer

Luna Raineri, Valerio Morlacci, Ana Maria Constantin, Aleksandr Voronov, Giovanni Maestri, Nicola Della Ca* and Luca Capaldo*



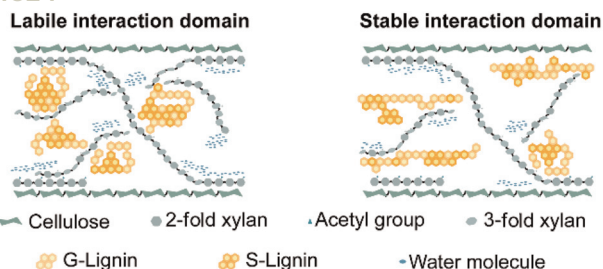
14807



Enhanced nitrogen fixation using DBD plasma with continuous flowing water and a TiO₂ photocatalyst coupled system

Wen-Dong Wan, Su-Rong Sun,* Chao Wang, Yury Gorbanev, Hai-Xing Wang and Annemie Bogaerts

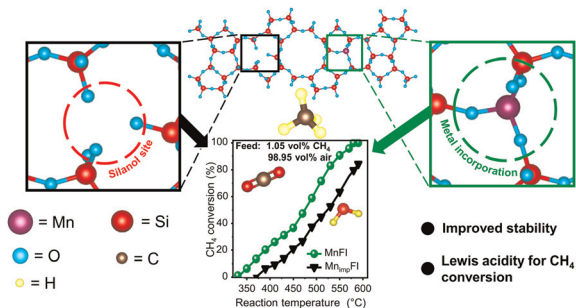
14824



Domain-specific lignin-carbohydrate interactions govern cell wall deconstruction in wheat straw

Yucheng Hu, Shixu Yu, Guohua Miao, Yuan He, Xiaoying Shen, Haichao Li and Feng Xu*

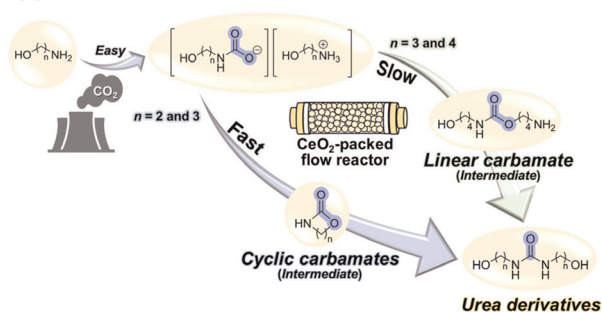
14838



Enhanced methane combustion over monoclinic single-site Mn-containing nanosized MFI zeolite catalyst

Marco Giuseppe Geloso, Sajjad Ghojavand,* Chunzheng Wang, Edwin B. Clatworthy, Oleg I. Lebedev, Diogenes Honorato Piva, Francesco Dalena, Glorija Medak, Aymeric Magisson, Hristijan A. Aleksandrov, Georgi N. Vayssilov and Svetlana Mintova*

14852



Continuous-flow synthesis of organic urea derivatives from CO₂-absorbed alkanolamines over a CeO₂ catalyst

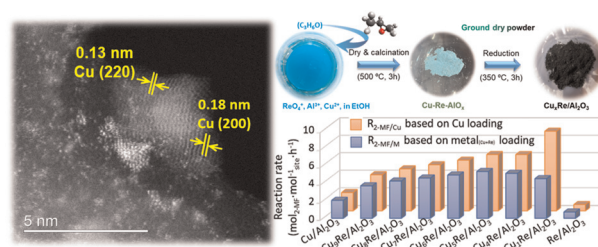
Shogen Mihara, Natsuki Mizutani, Hikari Terada, Mizuho Yabushita, Takaaki Endo, Yoshinao Nakagawa, Akira Nakayama and Keiichi Tomishige*



14873

Construction of Cu–Re–O_x rich interfaces for the catalytic hydrogen transfer of furfural

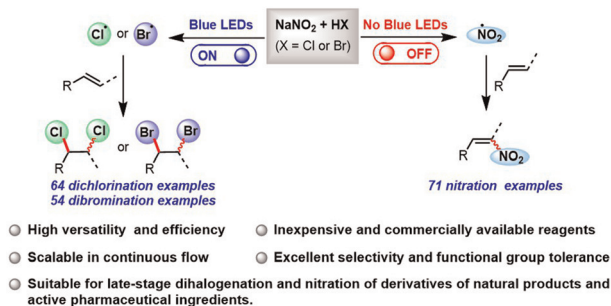
Jingjie Luo, Wenhao Yang, Tao Wang, Hao Liu, Xinyu Mao and Changhai Liang*



14883

A versatile, tunable method for NaNO₂/HX (Cl or Br)-mediated radical dihalogenation or nitration of olefins

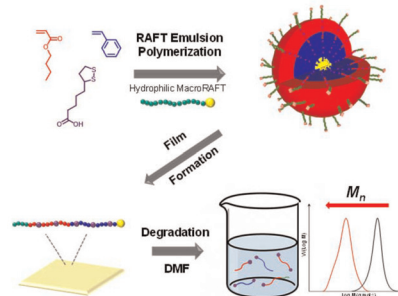
Jinglian Nong, Zehui Cao, Qin He, Yangyang Zhang, Jichao Chen* and Yaxin Wang*



14899

Degradable polymer films: RAFT-mediated emulsion copolymerization of lipoic acid with vinyl monomers

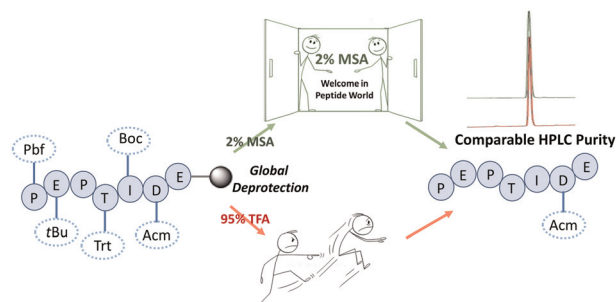
Steven W. Thompson, Yasemin Fadil, Nicholas J. Chan, Graeme Moad, Sébastien Perrier and Per B. Zetterlund*



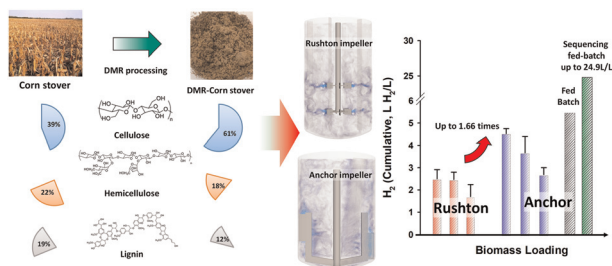
14911

Advancing sustainable peptide synthesis: methanesulfonic acid–formic acid as a greener substitute for TFA in final global deprotection

Fathima Fidha, Ashish Kumar,* Maria Leko, Oleg Marder, Sergey Burov, Anamika Sharma, Beatriz G. de la Torre* and Fernando Albericio*



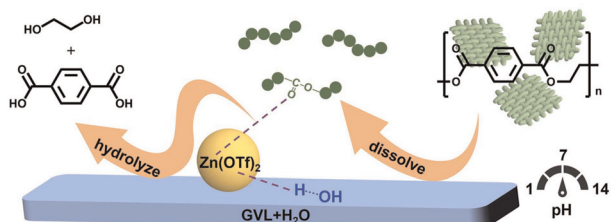
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Maximizing long-term biohydrogen production with *Clostridium thermocellum* for high solids conversion of lignocellulosic biomass

Young Eun Song, Changman Kim, Lydia Rachbauer, Lauren R. Magnusson, Chang Dou, Katherine J. Chou, Steven W. Singer and Eric Sundstrom*

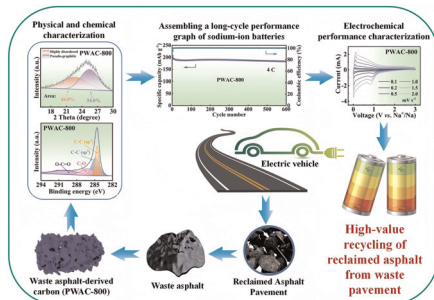
14934



Dual activation of a zinc salt and solvent-tuned dissolution enable efficient neutral hydrolysis of PET and its blends

Xuan Zhao, Shun Zhang, Jiaying Xu, Chengfeng Shen, Yifan Liu, Xuehui Liu, Zhishan Su,* Shimei Xu* and Yu-Zhong Wang

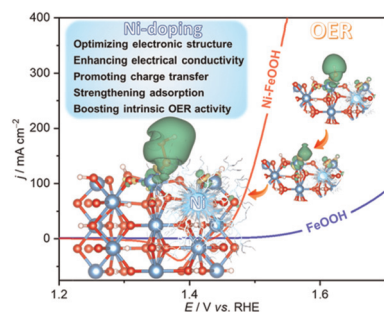
14944



Green upcycling of retired asphalt into "vortex-crosslinked" carbon anodes for high-performance sodium-ion batteries

Danqing Li, Xin He, Linlin Wang,* Mei Ding, Chunhui Gao and Chuankun Jia*

14954



Electronic modulation of Fe sites in hierarchical FeOOH for lowering the oxygen evolution energy barrier

Xiaoge Li,* Shuyi Zang, Jun Zhao, Daidi Li, Dandan Wang, Lei Wang, Qin-Chao Wang* and Jie Han*



CORRECTION

14963

Correction: NAD(H) self-recycling whole-cell biocatalysis for the production of furoic acid and 2,5-furandicarboxylic acid from furfural *via* CO₂ fixation

Mingzhe Ma and Yajie Wang*

