

Green Chemistry

Cutting-edge research for a greener sustainable future

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Cover

See Daipayan Roy,
Imad A. Haidar Ahmad *et al.*,
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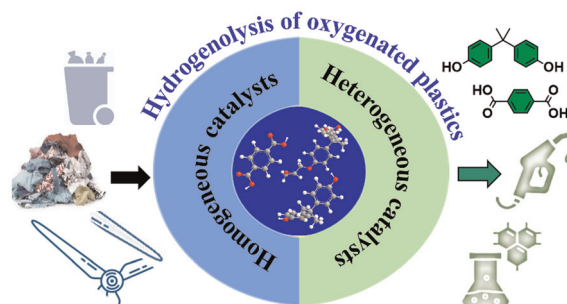
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CRITICAL REVIEW

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Challenges and opportunities in catalytic hydrogenolysis of oxygenated plastics waste: polyesters, polycarbonates, and epoxy resins

Harisekhar Mitta, Lingfeng Li,
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Elias Feghali, Kathy Elst, Annelore Aerts,
Karolien Vanbroekhoven and Kevin M. Van Geem*

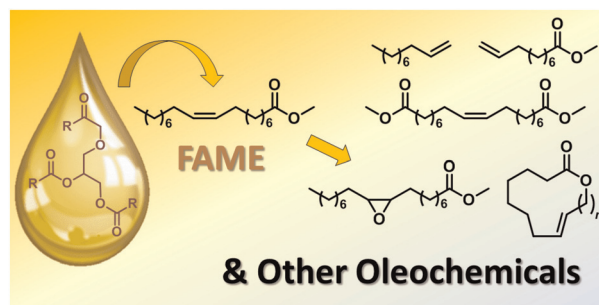


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The chemistry of oleates and related compounds in the 2020s

Pavel V. Ivchenko* and Ilya E. Nifant'ev



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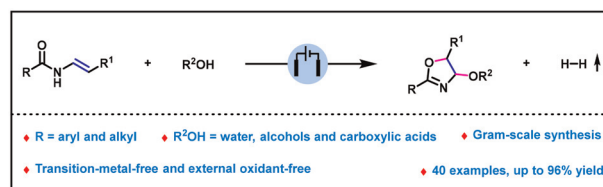
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Electrochemical dehydrogenative annulation for the synthesis of 4-oxo-oxazolines

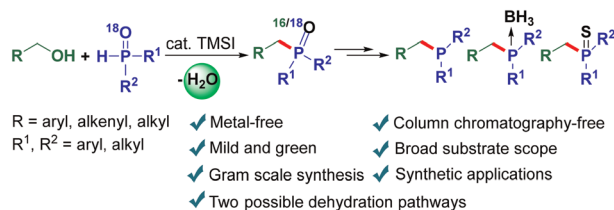
Yong Yuan,* Xincong Liu, Feng Zhang, Chunyan Bai, Yuyan Tao, Xiazhen Bao, Dongsheng Ji and Congde Huo



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Metal-free catalytic nucleophilic substitution of primary alcohols with secondary phosphine oxides

Xiantao Ma,* Xiaoyu Yan, Jing Yu, Jiarui Guo, Jiakun Bian, Ran Yan, Qing Xu* and Li-Biao Han*

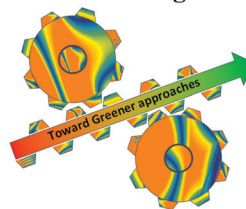


PAPERS

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In silico modeling enables greener analytical and preparative chromatographic methods

Troy T. Handlovic, Daipayan Roy,* Muhammad Qamar Farooq, Gabriel Mazzi Leme, Kevin Crossley and Imad A. Haidar Ahmad*

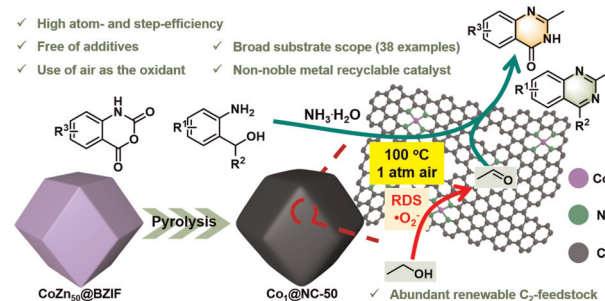
In Silico Modeling Enables “Greener” Methodology

- Applied to chromatographic methods at
 - ✓ Analytical scale
 - ✓ Preparative scale
- Less waste generated
- Switch to greener solvents & additives
- Scientific and Robust

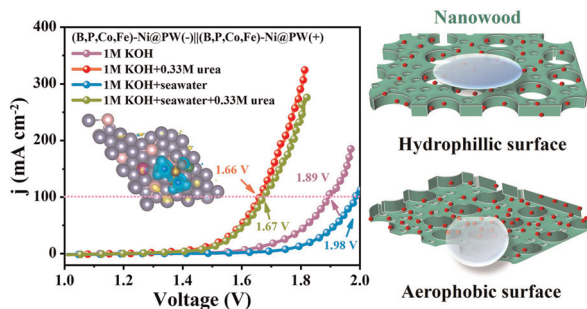
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Single cobalt atom catalysis for the construction of quinazolines and quinazolinones via the aerobic dehydrocyclization of ethanol

Xueping Zhang, Kai Xu, Yi Zhuang, Shihao Yuan, Yamei Lin and Guo-Ping Lu*



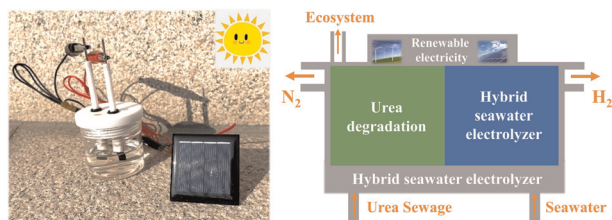
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Crystalline/amorphous c-NiMo/a-NiMoO_x nanoarrays for urea-assisted energy-saving H₂ production in alkaline seawater

Dongxue Guo,* Yi Ping, Chuanjiao Wang, Changan Hou and Danhong Wang*

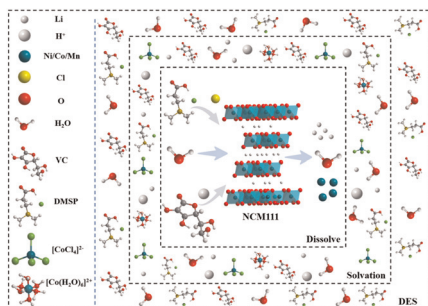
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DIPEA-induced Si–H activation of siloxane for hydrosilylation polymerization *via* metal-free photocatalysis

Hangcen Xie, Rui Xu, Bin Huang, Pingping Lou, Hua-Feng Fei* and Zhijie Zhang*

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High-efficiency leaching of valuable metals from waste lithium-ion ternary batteries under mild conditions using green deep eutectic solvents

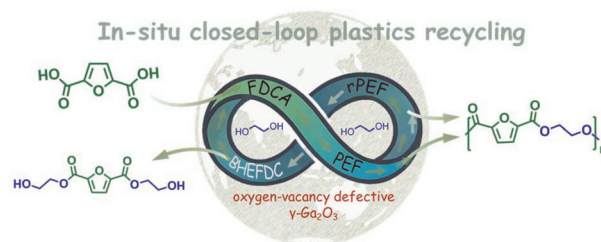
Bo Li, Chengping Li, Jinsong Wang, Rundong Wan, Jiangzhao Chen, Ying Liu, Zhengfu Zhang,* Yuejing Bin,* Xiaoping Yang,* Chongjun Bao and Shaohua Ju



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A simple, efficient and selective catalyst for closed-loop recycling of PEF *in situ* towards a circular materials economy approach

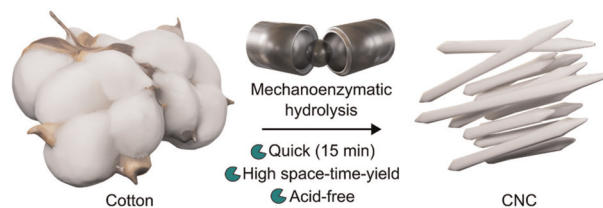
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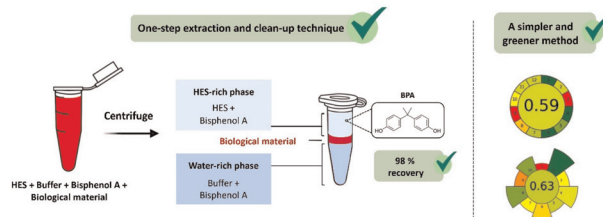
Sandra Kaabel,* Inge Schlapp-Hackl, Eero Kontturi and Mauri A. Kostianen



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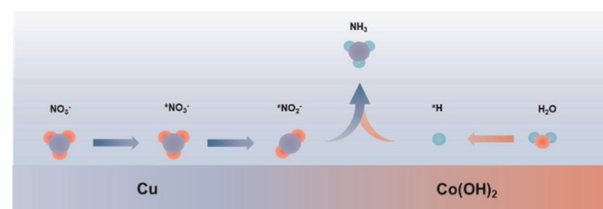
Cariny Polesca, Helena Passos, Ana C. A. Sousa,* Nguyen Minh Tue, João A. P. Coutinho, Tatsuya Kunisue and Mara G. Freire*



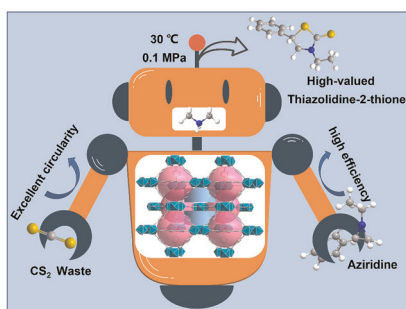
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Active hydrogen tuning by copper–cobalt bimetal catalysts for boosting ammonia electrosynthesis from simulated wastewater

Chunqi Yang, Chang Liu, Jingwen Zhuang, Ziyang Yang, Aiping Chen, Yuhang Li* and Chunzhong Li*



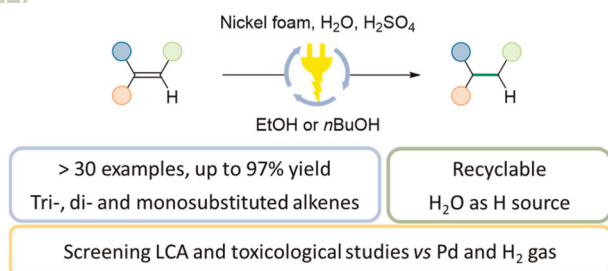
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Wenyu Ding, Xinyu Tang, Sheng Jin, Zhao Li, Dongwei Xu, Xiaomin Kang* and Zhiliang Liu*

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Electrochemical hydrogenation of alkenes over a nickel foam guided by life cycle, safety and toxicological assessments

Pedro J. Tortajada, Therese Kärnman, Pablo Martínez-Pardo, Charlotte Nilsson, Hanna Holmqvist, Magnus J. Johansson and Belén Martín-Matute*

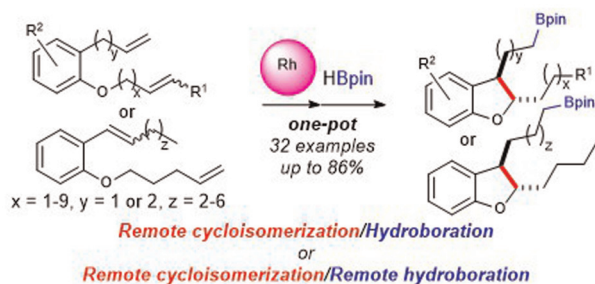
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A green and efficient strategy to utilize spent SCR catalyst carriers: *in situ* remediation of Cu@TiO₂ for photocatalytic hydrogen evolution

Zhuo Wang, Ling Ma, Bingzhang Chen, Yubo Zhang, Kai Hong Wong, Wei Zhao, Chunxia Wang,* Guoyong Huang* and Shengming Xu

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Multitasking rhodium-catalyzed remote C(sp³)-H functionalization reactions of acyclic dienes to yield benzene-fused heterocycles

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Hui Liu, Zhenda Fu, Xingwei Li* and Songjie Yu*

