

IN THIS ISSUE

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Cover

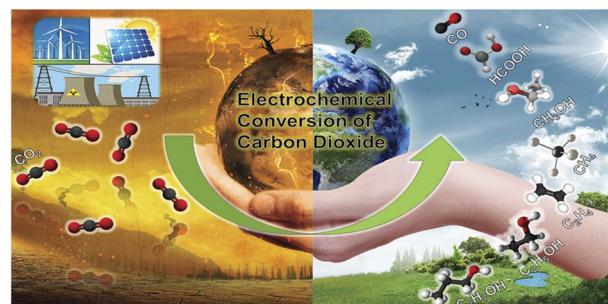
See Minna Hakkarainen *et al.*, pp. 1967–1981. Image reproduced by permission of Karla Garfias from *RSC Sustainability*, 2023, 1, 1967.

EDITORIAL

1908

Renewably powered electrochemical CO₂ reduction toward a sustainable carbon economy

Zhenyu Sun*

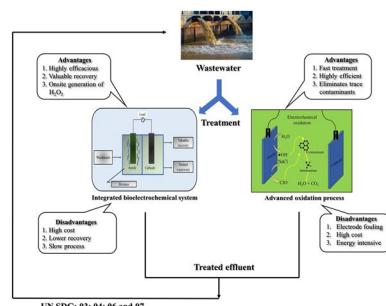


CRITICAL REVIEWS

1912

Critical assessment of advanced oxidation processes and bio-electrochemical integrated systems for removing emerging contaminants from wastewater

Yasser Bashir, Rishabh Raj, M. M. Ghangrekar, Arvind K. Nema and Sovik Das*



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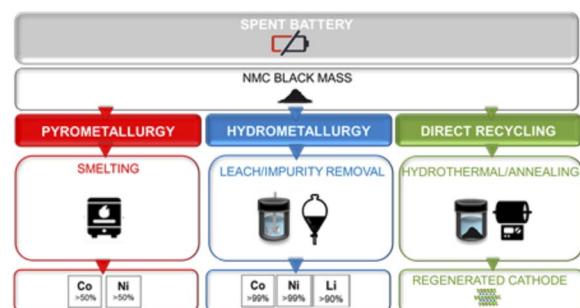


CRITICAL REVIEWS

1932

Hydrometallurgical recycling technologies for NMC Li-ion battery cathodes: current industrial practice and new R&D trends

Krystal Davis* and George P. Demopoulos*

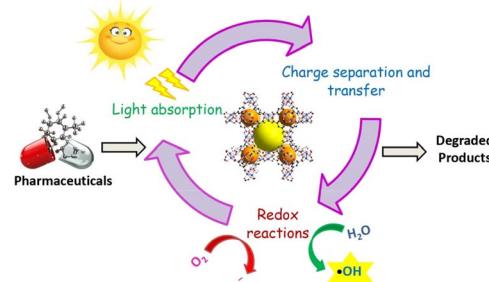


TUTORIAL REVIEW

1952

Recent advances in Cu-BTC MOF-based engineered materials for the photocatalytic treatment of pharmaceutical wastewater towards environmental remediation

Saptarshi Roy, Jnyanashree Darabdhara and Md. Ahmaruzzaman*

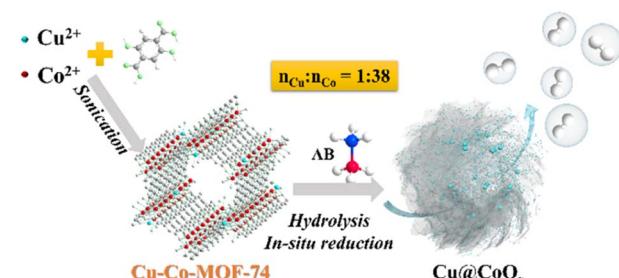


COMMUNICATION

1962

Copper nanoparticles decorated on cobalt oxide nanosheets derived from bimetallic metal–organic-framework for hydrolysis of ammonia borane

Qiuju Wang, Lianli Zou and Qiang Xu*



PAPERS

1967

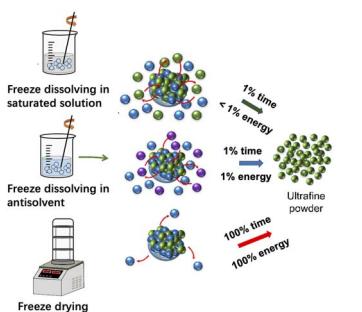
Surface modification of aramid fiber meshes – the key to chemically recyclable epoxy composites

Karla Garfias, Inger Odnevall, Karin Odellius and Minna Hakkarainen*



PAPERS

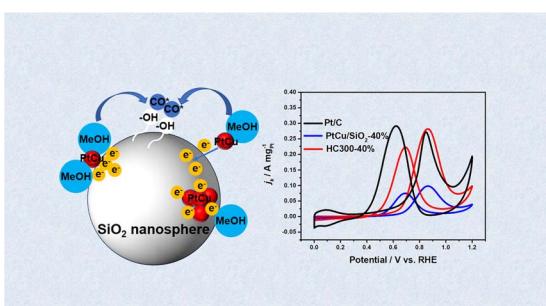
1982



Fast and simple preparation of microparticles of KHCO_3 by a freeze-dissolving method with single solvent or additional antisolvent

Jiaqi Luo, Qifan Su, Qiushuo Yu,* Xinyue Zhai, Yuan Zou and Huaiyu Yang*

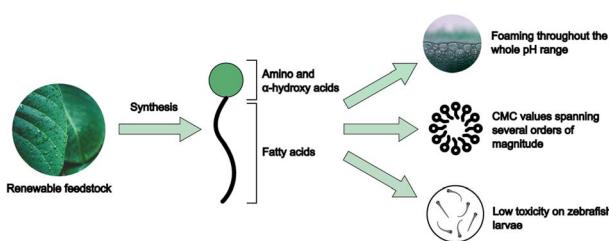
1989



The heat-promoted metal–support interaction of a PtCu/SiO_2 carbon-free catalyst for the methanol oxidation and oxygen reduction reactions

Quanqing Zhao, Han Zhi, Liu Yang and Feng Xu*

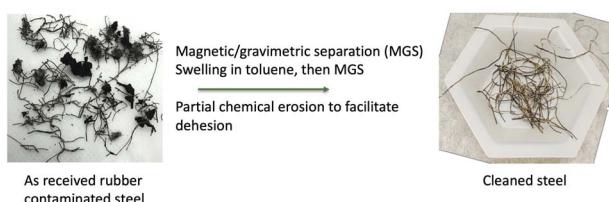
1995



Synthesis, physicochemical characterization and aquatic toxicity studies of anionic surfactants derived from amino and α -hydroxy acids

Demian Kalebic, Koen Binnemans, Peter A. M. de Witte and Wim Dehaen*

2006



Cleaning steel by devulcanizing rubber from used automotive tires

Yang Chen, Saleh Ibrahim, Sijia Zheng, Liam Wittenberg, Spencer Chapple, Griffin LaChapelle, Cheok Hang Iao, Adam Bourke and Michael A. Brook*

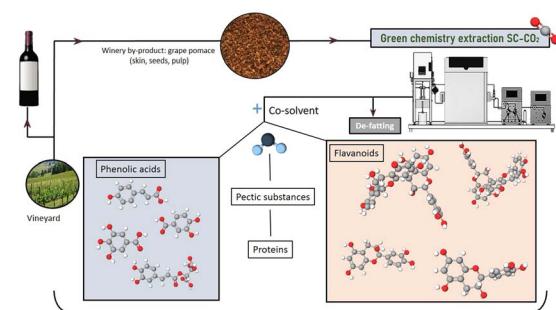


PAPERS

2014

Sequential extraction of high-value added molecules from grape pomaces using supercritical fluids with water as a co-solvent

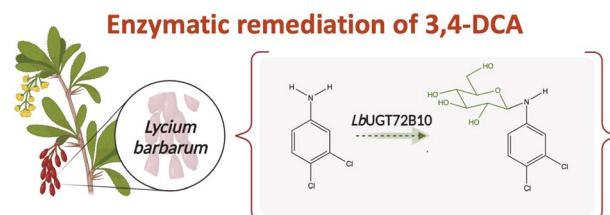
Gayane Hayrapetyan, Karen Trchounian, Laurine Buon,
Laurence Noret, Benoît Pinel, Jeremy Lagrue
and Ali Assifaoui*



2024

Identification and functional characterization of novel plant UDP-glycosyltransferase (*LbUGT72B10*) for the bioremediation of 3,4-dichloroaniline

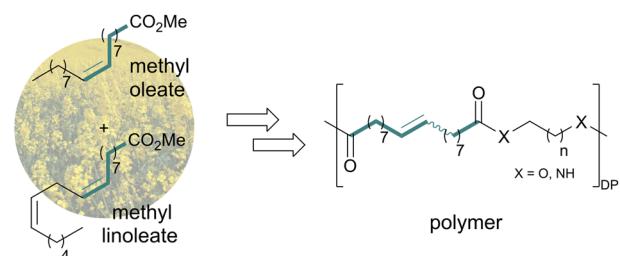
Valeria Della Gala and Ditte Heddam Welner*



2033

Cross-metathesis of technical grade methyl oleate for the synthesis of bio-based polyesters and polyamides

Paweł Krzesiński, Vincent César, Karol Grela,
Sergio Santos and Pablo Ortiz*



2038

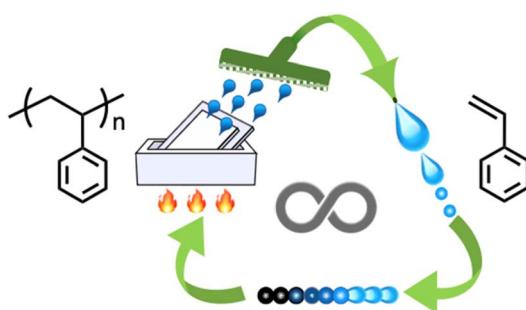
A sustainable approach for the adsorption of methylene blue from an aqueous background: an adsorbent based on DES/CGS modified GOaZrO_2

Vishwajit Chavda, Brijesh Patel, Sneha Singh,
Darshna Hirpara, V. Devi Raieswari and Sanjeev Kumar*



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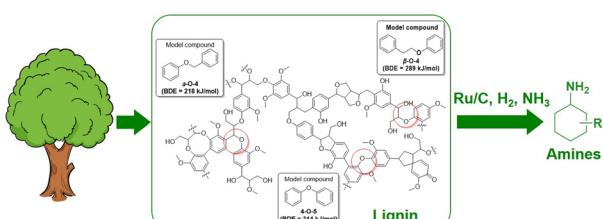
2058



Vacuum pyrolysis depolymerization of waste polystyrene foam into high-purity styrene using a spirit lamp flame for convenient chemical recycling

Eri Yoshida*

2066



The highly selective conversion of lignin models and organosolv lignin to amines over a Ru/C catalyst

Jin Xie, Xiaojing Wu, Jieyun Zhang, Xin Dai, Zelong Li* and Can Li*

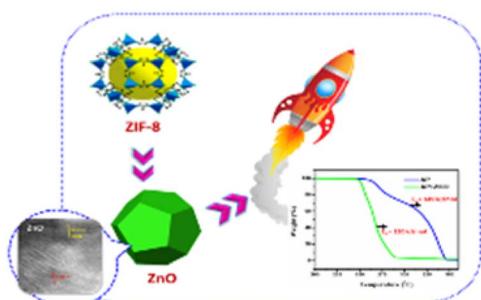
2072



Selective reduction of oxalic acid to glycolic acid at low temperature in a continuous flow process

Eric Schuler, Lars Grooten, Paula Oulego, N. Raveendran Shiju and Gert-Jan M. Gruter*

2081



ZIF-8 derived ZnO: a facile catalyst for ammonium perchlorate thermal decomposition

Gladiya Mani, Aswathy V. Kumar and Suresh Mathew*



PAPERS

2092

An actionable definition and criteria for “sustainable chemistry” based on literature review and a global multisectoral stakeholder working groupAmy Cannon, Sally Edwards, Molly Jacobs,
Jonathon W. Moir, Monika A. Roy and Joel A. Tickner*