

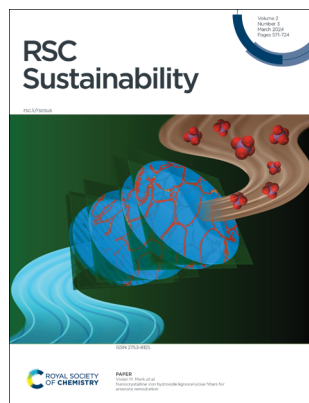
# RSC Sustainability

rsc.li/rscsus

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

## IN THIS ISSUE

ISSN 2753-8125 CODEN RSSUAN 2(3) 571-724 (2024)



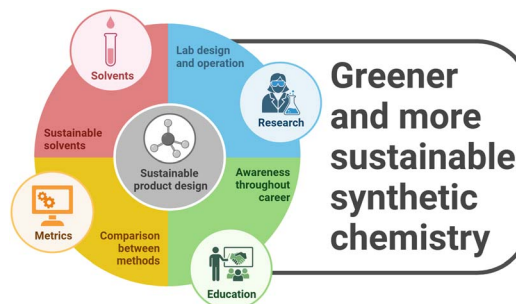
**Cover**  
See Vivian M. Merk *et al.*,  
pp. 626–634. Image  
reproduced by permission of  
Steven Soini, Taylor Hall and  
Vivian Merk from *RSC  
Sustainability.*, 2024, 2, 626.

## TUTORIAL REVIEW

578

### A tutorial review for research laboratories to support the vital path toward inherently sustainable and green synthetic chemistry

Sarah M. Kernaghan, Tracey Coady, Michael Kinsella and Claire M. Lennon\*



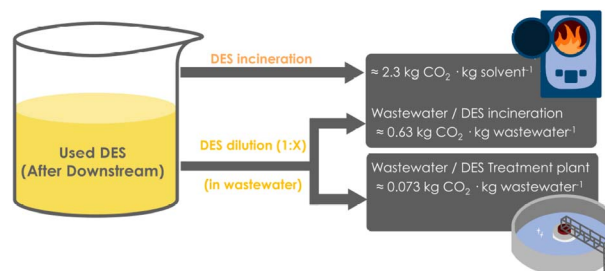
**Greener  
and more  
sustainable  
synthetic  
chemistry**

## PERSPECTIVE

608

### On the fate of deep eutectic solvents after their use as reaction media: the CO<sub>2</sub> production during downstream and ultimate disposal

Pablo Domínguez de María\* and Selin Kara\*



# Royal Society of Chemistry approved training courses

Explore your options.  
Develop your skills.  
Discover learning  
that suits you.

**Courses in the classroom,  
the lab, or online**

Find something for every  
stage of your professional  
development. Search our  
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit [rsc.li/cpd-training](https://rsc.li/cpd-training)

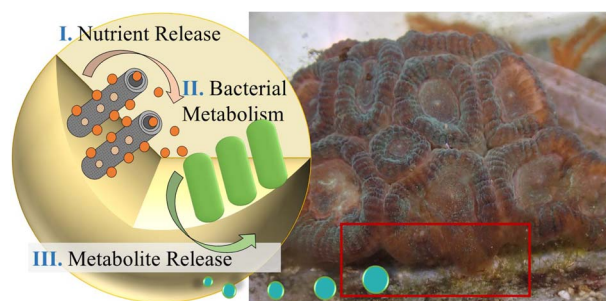


**SAVE  
10%**

616

### Sustainable artificial coral reef restoration using nanoclays and composite hydrogel microcapsules

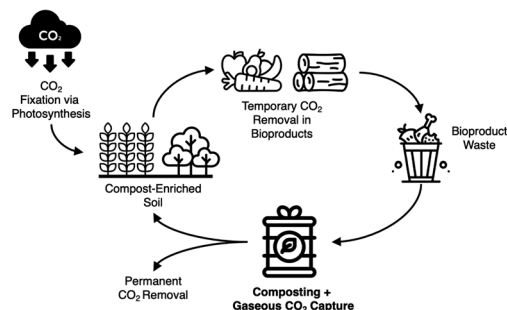
Mohammad Fahimizadeh, Febrienne Sukiato, Kok Lynn Chew, Yang Amri Affendi, Pooria Pasbakhsh,\* Joash Ban Lee Tan, R. K. Singh Raman and Peng Yuan



621

### Biomass composting with gaseous carbon dioxide capture

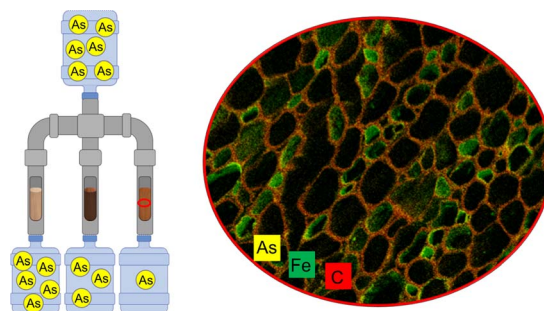
Ethan Woods, Vanessa Rondon Berrio, Yaojing Qiu, Perry Berlin, Nicolas Clauser and William Joe Sagues\*



626

### Nanocrystalline iron hydroxide lignocellulose filters for arsenate remediation

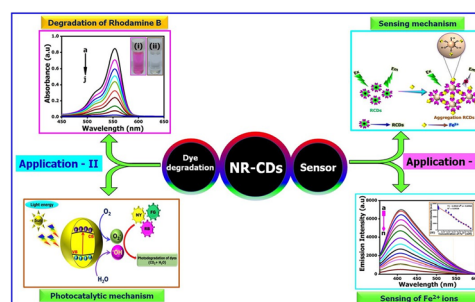
Steven A. Soini, Sofia M. Feliciano, Bobby G. Duersch and Vivian M. Merk\*



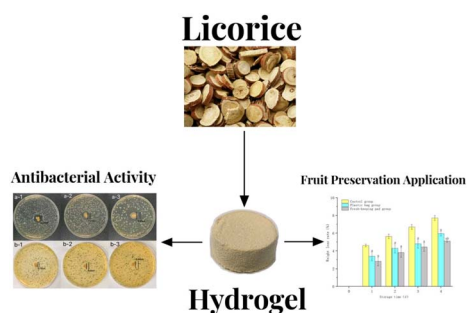
635

### One-pot synthesis of carbon dots from neem resin and the selective detection of Fe(II) ions and photocatalytic degradation of toxic dyes

S. Gokul Eswaran, T. Stalin, D. Thirupathi, Manivannan Madhu, S. Santhoshkumar, Jolanta Warchol, A. Santhana Krishna Kumar,\* Wei-Lung Tseng\* and N. Vasimalai\*



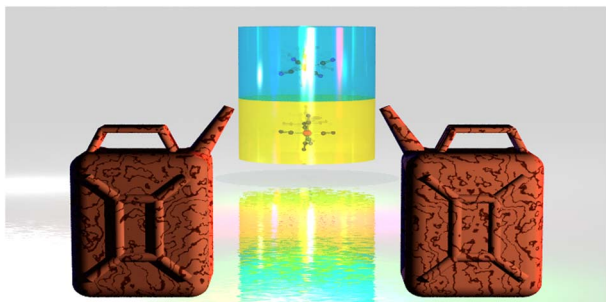
646



### An antibacterial hydrogel prepared from a licorice residue extract

Xiaoru Shi, Liqun Wang, Qian Chen, Qijian Zheng, Hongli Chen and Xi Li\*

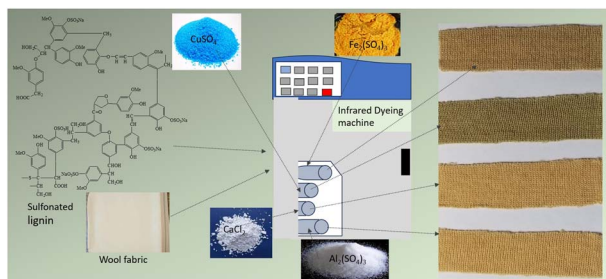
655



### Sustainable solvent extraction of gold and other metals with biomass chemicals

Mark R. StJ. Foreman,\* Richard K. Johansson, Gloria Mariotti, Ingmar Persson, Behabitu E. Tebikachew and Mikhail S. Tyumentsev

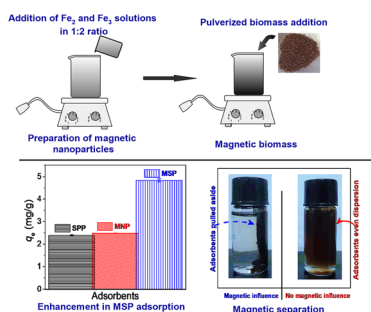
676



### Valorisation of sulphonated lignin as a dye for the sustainable colouration of wool fabric using sustainable mordanting agents: enhanced colour yield, colourfastness, and functional properties

Mohammad Mahbubul Hassan\*

686



### Adsorptive decolorization of dyes in aqueous solution using magnetic sweet potato (*Ipomoea batatas* L.) peel waste

Paul N. Diagboya,\* Alexander Odagwe, Henry H. Oyem, Chiadika Omoruyi and Emmanuel Osabohien

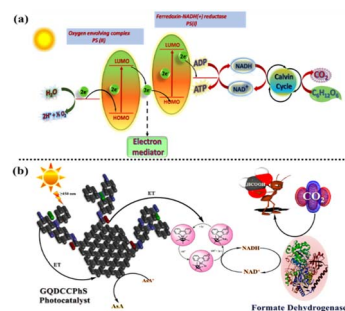




695

## Solar-powered CO<sub>2</sub> marvel: ultrahigh graphene quantum dots covalently coupled with PhS unleash effective photocatalysis for valuable chemical transformation

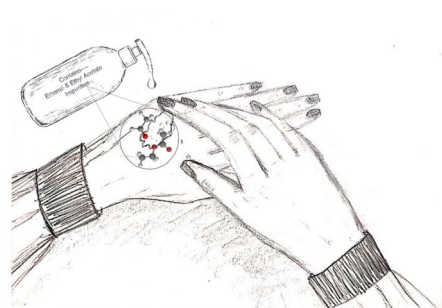
Jyoti Agrawal, Rehana Shahin, Chandani Singh, Satyam Singh, Ravindra K. Shukla, Shaifali Mishra, Pooja Singh, Jin-OoK. Baeg,\* Rajesh K. Yadav\* and Navneet K. Gupta\*



701

## How impurities responsible for recalls emerge in hand sanitizers

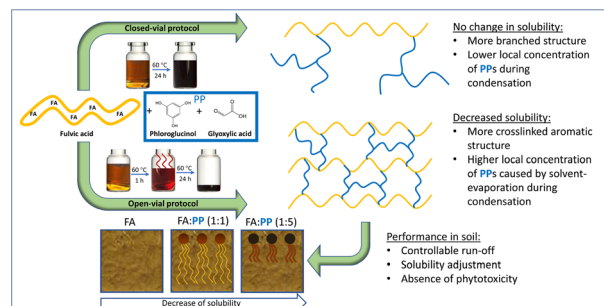
Farsheed Shahbazi-Raz,\* Mary A. Egbuta, Bukola R. Aremu, Neda Mashhadi, Paul Tucci, Justin Binder and John F. Trant\*



710

## Fulvic acid modification with phenolic precursors towards controllable solubility performance

Vitalii Tkachenko, Stefano Ambrosini, Nader Marzban, Ashish Pandey, Sarah Vogl, Markus Antonietti and Svitlana Filonenko\*



## CORRECTION

721

## Correction: A tutorial review for research laboratories to support the vital path toward inherently sustainable and green synthetic chemistry

Sarah M. Kernaghan, Tracey Coady, Michael Kinsella and Claire M. Lennon\*

