

# Environmental Science Processes & Impacts

rsc.li/espi

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 2050-7887 CODEN ESPICZ 26(7) 1109–1258 (2024)



**Cover**  
See J. Kontrec, N. Matijaković Mlinarić, B. Njegić Džakula *et al.*, pp. 1116–1129. Image reproduced by permission of Jasminka Kontrec, Nives Matijaković Mlinarić and Branka Njegić Džakula from *Environ. Sci.: Processes Impacts*, 2024, 26, 1116.



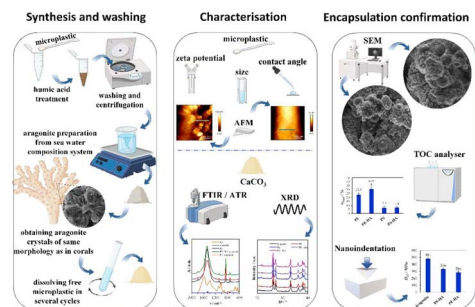
**Inside cover**  
See Natarajan Chandrasekaran *et al.*, pp. 1130–1146. Image reproduced by permission of Natarajan Chandrasekaran from *Environ. Sci.: Processes Impacts*, 2024, 26, 1130.

## PAPERS

1116

### Microplastics encapsulation in aragonite: efficiency, detection and insight into potential environmental impacts

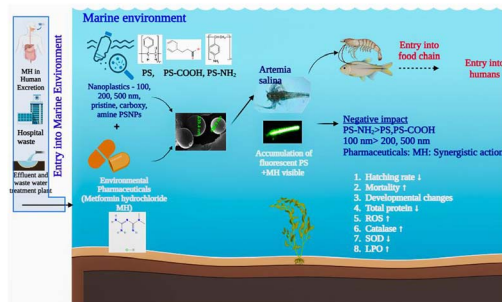
Nives Matijaković Mlinarić, Katarina Marušić, Antun Lovro Brkić, Marijan Marciuš, Tamara Aleksandrov Fabijanić, Nenad Tomašić, Atiđa Selmani, Eva Roblegg, Damir Kralj, Ivana Stanić, Branka Njegić Džakula\* and Jasminka Kontrec\*



1130

### Surface functionalization, particle size and pharmaceutical co-contaminant dependent impact of nanoplastics on marine crustacean – *Artemia salina*

Durgalakshmi Rajendran, Mahalakshmi Kamalakannan, George Priya Doss and Natarajan Chandrasekaran\*



# Environmental Science journals

One impactful portfolio for  
every exceptional mind

Harnessing the power of interdisciplinary  
science to preserve our environment

[rsc.li/envsci](https://rsc.li/envsci)

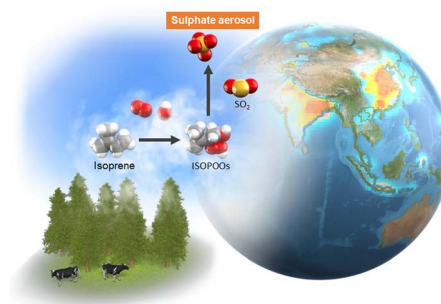
Fundamental questions  
Elemental answers



1147

## Kinetic study of isoprene hydroxy hydroperoxide radicals reacting with sulphur dioxide and their global-scale impact on sulphate formation

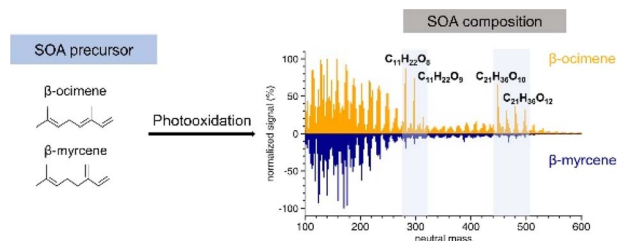
Hiroo Hata\* and Kenichi Tonokura



1156

## Emerging investigator series: secondary organic aerosol formation from photooxidation of acyclic terpenes in an oxidation flow reactor

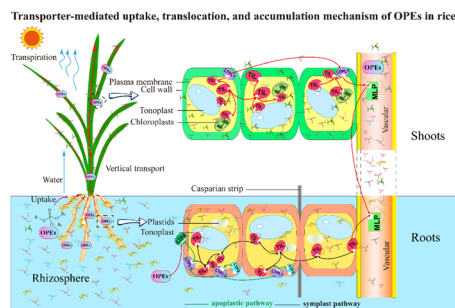
Shan Gu, Farzaneh Khalaj, Veronique Perraud and Celia L. Faiola\*



1171

## Organophosphate esters uptake, translocation and accumulation in rice (*Oryza sativa* L.): impacts of lipid transporters and chemical properties

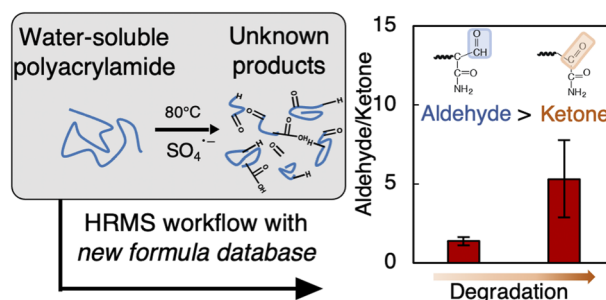
Wenxuan Wang, Haiou Wang,\* Xiaoyu Ren, Wenxiao Zhang and Qian Li



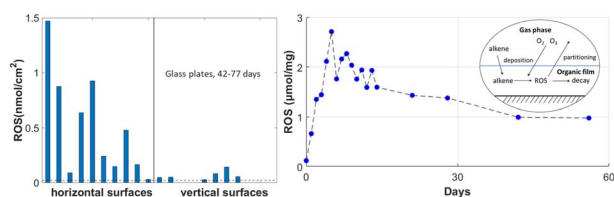
1184

## Deciphering polymer degradation chemistry via integrating new database construction into suspect screening analysis

Phoebe Keyes, Noor Halimah and Boya Xiong\*



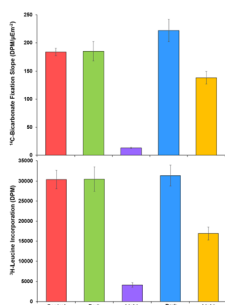
1198



## Reactive oxygen species on indoor surfaces

Zhenduo Yao and Glenn Morrison\*

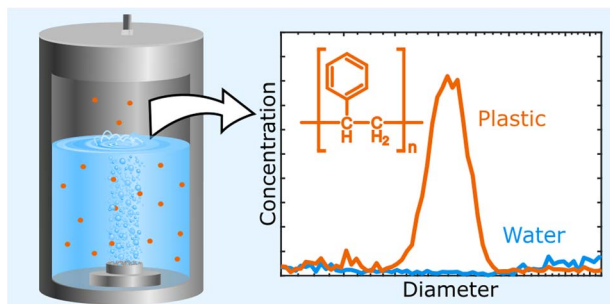
1205



## Effects of burning and photochemical degradation of Macondo surrogate oil on its composition and toxicity

Pamela P. Benz,\* Phoebe Zito, Ed Osborn, Aleksandar I. Goranov, Patrick G. Hatcher, Matthew D. Seivert and Wade H. Jeffrey

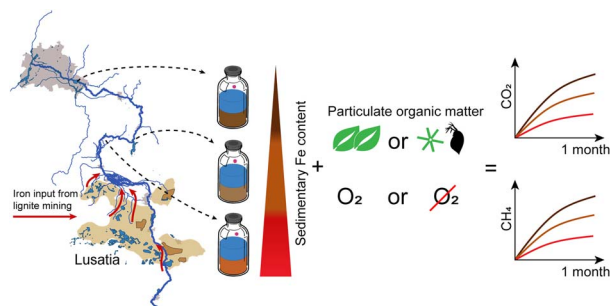
1216



## Bubble-mediated generation of airborne nanoplastic particles

Eva Rosendal Kjærgaard, Freja Hasager, Sarah Suda Petters, Marianne Glasius and Merete Bilde\*

1227



## Reduced greenhouse gas emissions from particulate organic matter degradation in iron-enriched sediments

Giulia Kommana, Michael Hupfer, Jason Nicholas Woodhouse, Hans-Peter Grossart and Tobias Goldammer\*



