

# Environmental Science: Advances

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## IN THIS ISSUE

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**Cover**  
See Paul N. Williams, Yingjian Xu *et al.*, pp. 1198–1210.  
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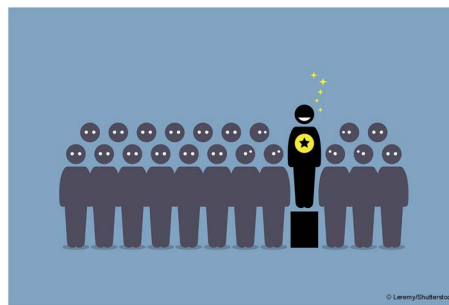


**Inside cover**  
See Chandan Tamuly *et al.*, pp. 1211–1222. Image reproduced by permission of Chandan Tamuly from *Environ. Sci.: Adv.*, 2025, 4, 1211.

## EDITORIAL

1141

### Outstanding Reviewers for *Environmental Science: Advances* in 2024



## CRITICAL REVIEWS

1142

### Detection and degradation of microplastics in the environment: a review

Saba Yousafzai, Mujahid Farid,\* Muhammad Zubair,\* Nafeesa Naem, Wardha Zafar, Zaki ul Zaman Asam, Sheharyar Farid and Shafaqat Ali



# Environmental Science: Atmospheres

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Fundamental questions  
Elemental answers

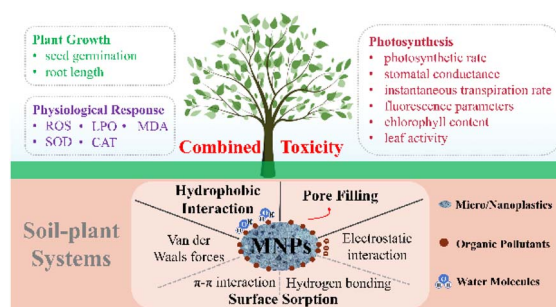


## CRITICAL REVIEWS

1166

### Combined interactions and ecotoxicological effects of micro/nanoplastics and organic pollutants in soil-plant systems: a critical overview

Yu Xie, Yaping Lyu,\* Samina Irshad, Xingxin Liu, Yaqi Jiang, Yi Sun, Ziqi Zhang, Haojie Wei, Huiyi He, Changcheng An and Peng Zhang\*

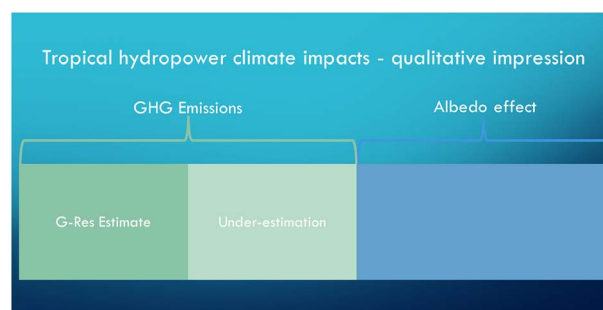


## PERSPECTIVE

1181

### Climate impact of tropical hydropower: a perspective on G-res model calculations

Frank van der Valk,\* Christopher Bonzi and Pyi Soe Aung

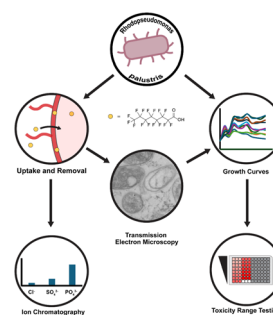


## COMMUNICATION

1191

### Unique adaptations of a photosynthetic microbe *Rhodospseudomonas palustris* to the toxicological effects of perfluorooctanoic acid

Mark Kathol, Anika Azme, Sumaiya Saifur, Nirupam Aich\* and Rajib Saha\*

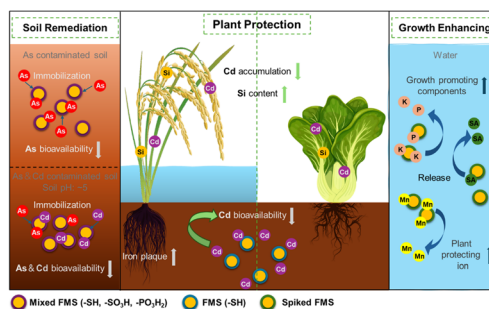


## PAPERS

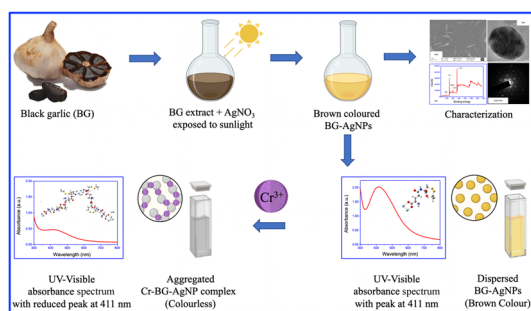
1198

### Multi-mode soil chemical passivation and crop protection of severe cadmium and arsenic polluted soils with engineered silica

Jiawei Yang, Paul N. Williams,\* Xiaoxia Cao, Jun Luo, Hongyan Liu and Yingjian Xu\*



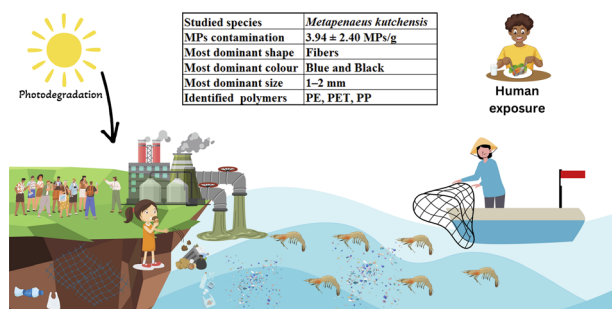
1211



### Optimized colorimetric detection of chromium ions ( $\text{Cr}^{3+}$ ) using black garlic-Ag nanoparticles

Rintumoni Paw, Kangkan Sarmah, Ankur K. Guha and Chandan Tamuly\*

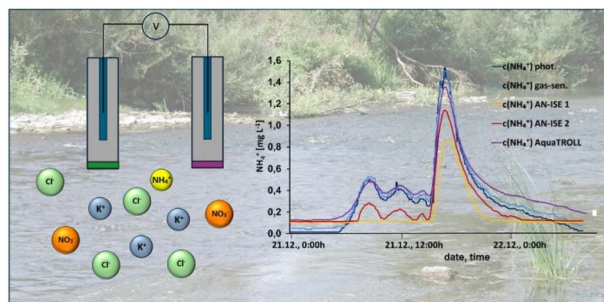
1223



### Microplastic contamination in endemic species: a case study on ginger prawn, *Metapenaeus kutchensis*

Heris Patel, Vasantkumar Rabari, Ashish Patel,\* Dipak Kumar Sahoo\* and Jigneshkumar Trivedi\*

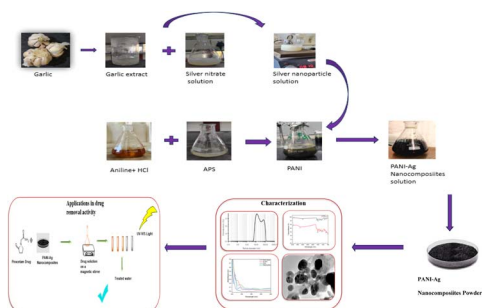
1238



### In situ real-time monitoring of ammonium, potassium, chloride and nitrate in small and medium-sized rivers using ion-selective-electrodes – a case study of feasibility

Angelika M. Meyer,\* Elisa Oliveri, Ralf Kautenburger, Christina Hein, Guido Kickelbick and Horst P. Beck

1250



### Synthesis of polyaniline-encapsulated silver nanocomposites to improve removal efficacy of anti-alzheimer drug from aqueous solution and evaluation of their antioxidant properties

Priya Kaushik, Ruchi Bharti,\* Renu Sharma and Annu Pandey\*





## CORRECTION

1333

**Correction: Soil greenhouse gas fluxes in corn systems with varying agricultural practices and pesticide levels**

Eri Saikawa,\* Alexander Avramov, Nicholas Basinger, Jerzi Hood, Nandita Gaur, Aaron Thompson, Angela Moore, Douglas Wolf and Yaoxing Wu

