Environmental Science: Advances

rsc.li/esadvances

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 2754-7000 CODEN ESANEB 4(6) 811-982 (2025)



Cover

See Neha Arora et al., pp. 884-900. Image reproduced by permission of Neha Arora from Environ. Sci.: Adv., 2025, 4, 884. Partially generated using Google Gemini.



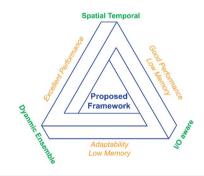
Inside cover

See Ryota Nakajima et al., pp. 901-911. Image reproduced by permission of JAMSTEC from Environ. Sci.: Adv., 2025, 4, 901.

PERSPECTIVE

Al for enhanced water quality data imputation: a deep learning perspective

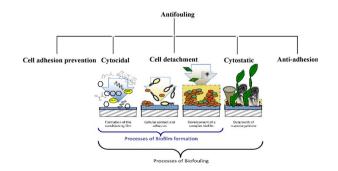
Ishan Prasad Banjara, Suman Poudel, Kalam Pariyar, Deepesh Upreti, Antigoni Zafeirakou and Shukra Raj Paudel*



TUTORIAL REVIEWS

Polymers for anti-fouling applications: a review

Waham Ashaier Laftah* and Wan Aizan Wan Abdul Rahman





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

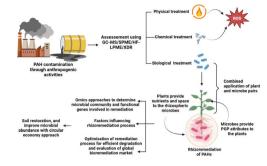


TUTORIAL REVIEWS

842

Environmental restoration of polyaromatic hydrocarbon-contaminated soil through sustainable rhizoremediation: insights into bioeconomy and high-throughput systematic analysis

Nandita Das, Vijay Kumar, Kamlesh Chaure and Piyush Pandey*



CRITICAL REVIEW

Thriving in extremes: harnessing the potential of pH-resilient algal strains for enhanced productivity and stability

Neha Arora,* Shweta Tripathi, George P. Philippidis and Shashi Kumar



PAPERS

901

Development of a novel semi-automated analytical system of microplastics using reflectance-FTIR spectrometry: designed for the analysis of large microplastics

Ryota Nakajima,* Hiromi Sawada, Shinichiro Hayashi, Akishi Nara and Mitsunari Hattori

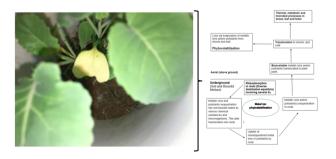
Semi-automated microplastic analyzer



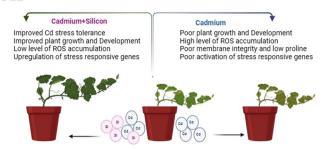
912

The effect of biosolid/soil composition on growth and uptake of zinc (Zn) by broccoli (Brassica oleracea var.) under greenhouse conditions

Kefa K. Onchoke,* Brett P. Horalan Jnr. and Robert B. Friedfeld

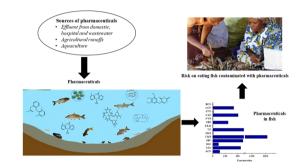


PAPERS



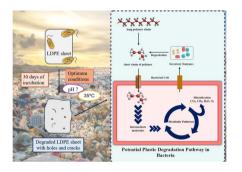
Silicon alleviates cadmium toxicity in muskmelon (Cucumis melo): integrative insights from photosynthesis to antioxidant activity to gene expression

Ram Krishna, Mohammad Shahid, Waguar Akhter Ansari,* Khalid Mashay Al-Anazi, Mohammad Abul Farah, Durgesh Kumar Jaiswal, Akhilesh Yadav, Sudhakar Pandey and Md Azizul Haque*



Occurrence and distribution of selected pharmaceuticals in fresh fish along the Kenyan coast and assessment of potential human health risks

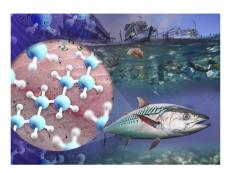
Veronica Wayayi Ogolla Wanjeri, Eric Okuku, Jane Catherine Ngila, Edward Waiyaki, Joseph Kamau Nyingi and Patrick Gathura Ndungu'



Introducing the LDPE degrading microbes of sedimentary systems: from dumpsite to laboratory

Anita Tirkey and Lata Sheo Bachan Upadhyay*

964



Morphochemical information on microplastic fibers found in edible tissue of local commercial fishes from the South China Sea and the Straits of Malacca for potential human consumption

Yusof Shuaib Ibrahim, Nur Izzati Abd Razak, Nur Sakinah Roslan, Ku Mohd Kalkausar Ku Yusof, Ahmad Ammarluddin Mohd Ali, Nor Fatihah Omar, Chingakham Chinglenthoiba, Nurul Najihah Mohamad and Sabigah Tuan Anuar*