

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(11) 1703–1930 (2025)



Cover
See Shoeb Ahmed, Nirupam Aich *et al.*, pp. 1735–1745.
Image reproduced by permission of Shoeb Ahmed from *Environ. Sci.: Adv.*, 2025, 4, 1735.

EDITORIAL

1711

Introduction to Soil Protection and Regeneration

Célia M. Manaia and Kevin C. Jones

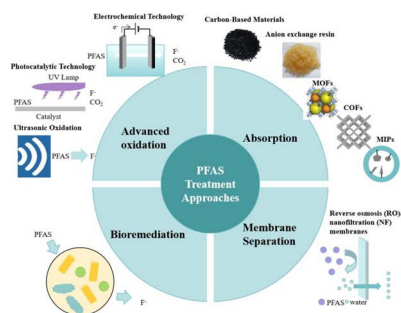


CRITICAL REVIEW

1712

A review on technologies for the removal of per- and polyfluoroalkyl substances (PFASs) in aquatic environments

Hao Zang, Yingming Feng,* Shengyuan Gao,* Mangmang Su, Qiyang Feng and Xiangfeng Chen



Advance your career in science

with professional recognition that showcases
your **experience, expertise and dedication**

Stand out from the crowd

Prove your commitment
to attaining excellence in
your field

Gain the recognition you deserve

Achieve a professional
qualification that inspires
confidence and trust

Unlock your career potential

Apply for our professional
registers (RSci, RSciTech)
or chartered status
(CChem, CSci, CEnv)

Apply now

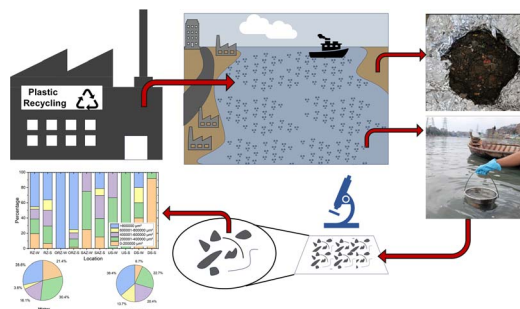
[rsc.li/professional-development](https://www.rsc.li/professional-development)



1735

Deciphering the connection between the informal plastic recycling industry and the microplastic pollution in the Buriganga River

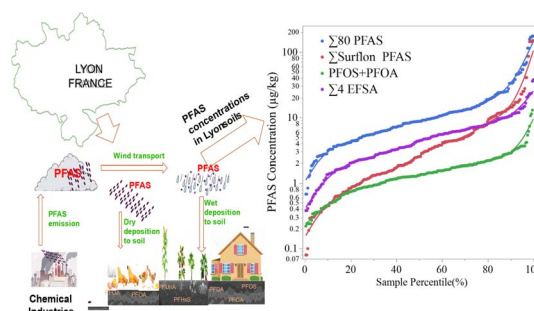
Md. Ridwan Mahfuz, Mohammad Yousran Fargab, Zaki Alam Pushan, Nafisa Islam, Shoeb Ahmed* and Nirupam Aich*



1746

Occurrence of PFAS in Lyon soils: contribution and impact of industrial activities

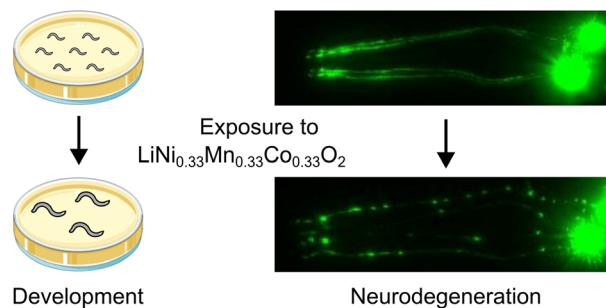
Toyin Dunsin Saliu, Darianne Pepin, Louis Delon, Justine Fontaine and Sébastien Sauvé*



1767

Lithium nickel manganese cobalt oxide particles cause developmental neurotoxicity in *Caenorhabditis elegans*

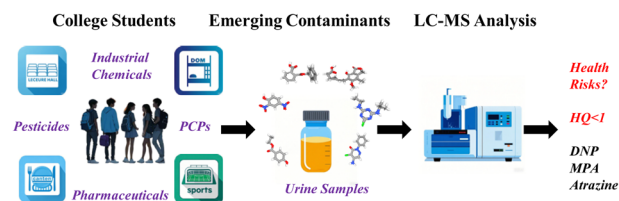
Roi Faroud Lopez, Javier Huayta, Gordon D. Z. Williams, Sarah A. Seay, Pooja D. Lalwani, Sasha N. Bacot, Avner Vengosh and Joel N. Meyer*



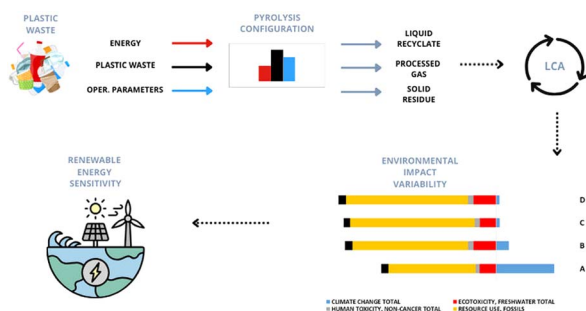
1782

What emerging contaminants are in the urine of college students and what are their associated risks? analysis method development and applications

Meng Hu,* Jingjing Song, Xiangru Yi, Ziwei Yuan, Chang Wang, Rui Gao, Hongyan Zou, Hongmei Zhang, Chenshan Lv, Haiyan Cui, Tao Wang, Chao Zhang, Zhiwen Wei, Keming Yun and Chang-Er Chen*



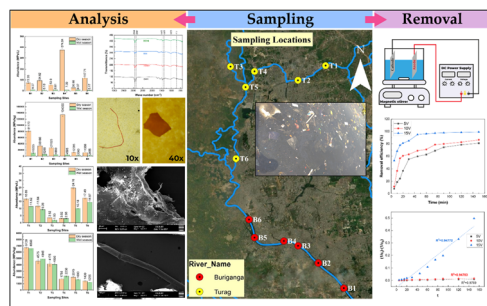
1796



The effects of the technological setup of plastic waste pyrolysis on its environmental performance

Tatiana Trecáková,* Aleš Paulu, Ivanna Harasymchuk, Hana Brunhoferová and Vladimír Kočí

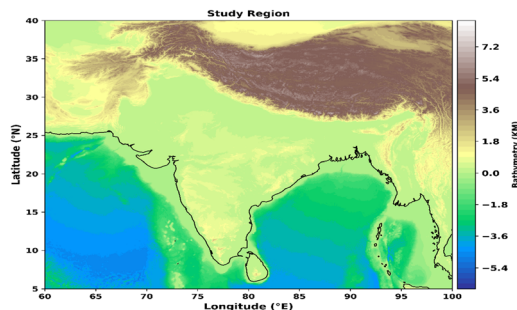
1810



Critical analysis, characterization, and treatment of microplastics in the peripheral rivers of Dhaka city: Buriganga and Turag

Foyzal Mahmud, Hridoy Roy,* Md. Mahmud Kamal Bhuiyan and Md. Shahinoor Islam*

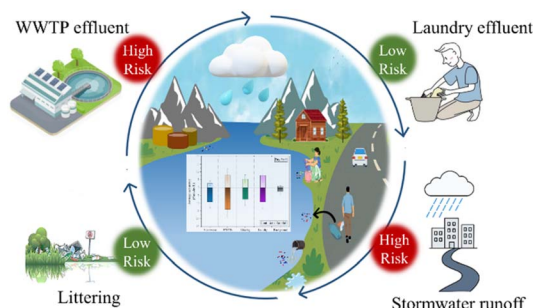
1834



Effect of seasonal variability of aerosols in radiative forcing and Indian summer monsoon rainfall over south Asia during ENSO events

Sakshi Sharma and Arun Chakraborty*

1848



Pathway-specific microplastic dynamics in a Himalayan urban lake, India: insights on how continuous rainfall transforms microplastic characteristics and risk

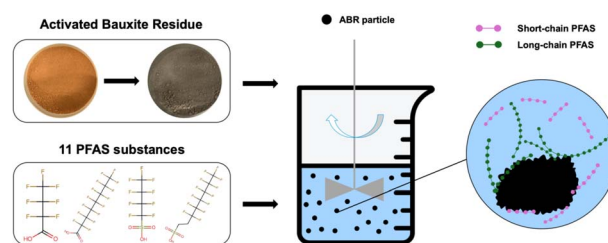
Mozim Shafi, Ayan Lodh, Reyaz Hussain Akhoun, Khalid Muzamil Gani and Sudha Goel*



1865

Repurposing bauxite residue (a waste material) as an adsorbent for removing PFAS from water

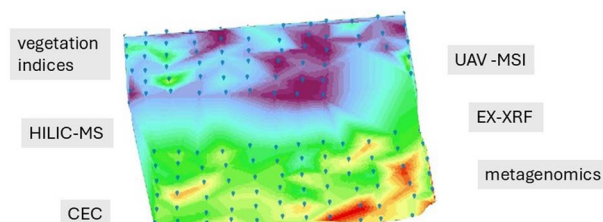
Jingya Pang, Huixin Qiu, Scott Berggren, Himanshu Tanvar, Brajendra Mishra and Maricor J. Arlos*



1877

Use of environmental forensics to assess land sustainability: a case study on a former coal mining site

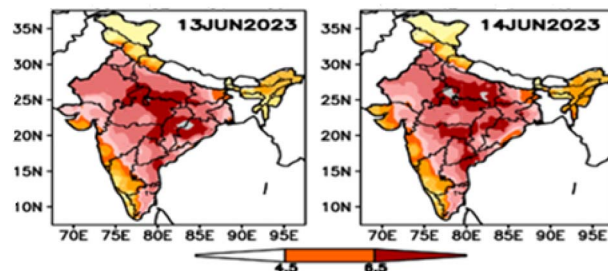
Ibrahim A. Salaudeen, Kate Randall,* Nabanita Basu, William Cheung, Catherine E. Nicholson, Justin J. Perry* and John R. Dean



1896

Assessing the impact of enhanced model resolution on heatwave prediction during June 2023

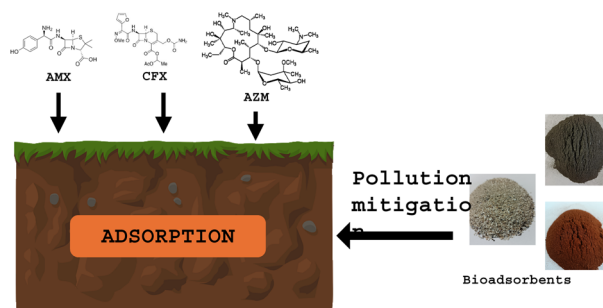
Sakshi Sharma, Harvir Singh, Anumeha Dube, Arun Chakraborty,* M. N. Raghavendra Sreevathsa, Raghavendra Ashrit and V. S. Prasad



1913

Simultaneous presence of antibiotics in the environment: competition for soil adsorption sites and risk mitigation by bioadsorbents

Raquel Cela-Dablanca,* Ainoa Míguez-González, Ana Barreiro, Lucía Rodríguez-López, Manuel Arias-Estévez, Avelino Núñez-Delgado, Esperanza Álvarez-Rodríguez and María J. Fernández-Sanjurjo



CORRECTION

1927

Correction: Deciphering the connection between the informal plastic recycling industry and the microplastic pollution in the Buriganga River

Md. Ridwan Mahfuz, Mohammad Yousran Fargab, Zaki Alam Pushan, Nafisa Islam, Shoeb Ahmed* and Nirupam Aich*

