Open Access Article. Published on 22 May 2024. Downloaded on 1/19/2026 6:30:37 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

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(5) 795–958 (2024)

Cover
See Cinzia Sada *et al.*, pp. 802–813. Image reproduced by permission of Cinzia Sada from *Environ. Sci.: Processes Impacts*, 2024, **26**, 802.

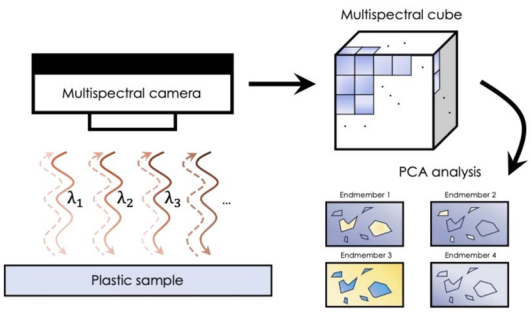
Inside cover
See Philip T. Gidley *et al.*, pp. 814–823. Image reproduced by permission of Philip T. Gidley from *Environ. Sci.: Processes Impacts*, 2024, **26**, 814. Cover art design by: Alvin Foster – Information Technology Laboratory. Photography by: Carlos E. Ruiz – Environmental Laboratory.

PAPERS

802

Identification of spectral responses of different plastic materials by means of multispectral imaging

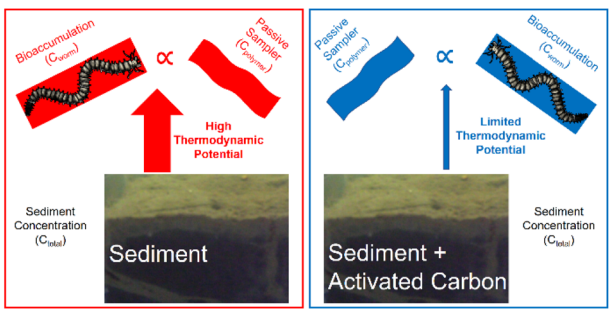
Giovanni Bragato, Giovanni Piccolo, Gabriele Sattier and Cinzia Sada*



814

Quantitative thermodynamic exposure assessment of PCBs available to sandworms (*Alitta virens*) in activated carbon remediated sediment during ongoing sediment deposition

Philip T. Gidley,* Guilherme R. Lotufo, Stine N. Schmidt, Philipp Mayer and Robert M. Burgess



View Article Online

ROYAL SOCIETY OF CHEMISTRY

10 YEARS ANNIVERSARY

Environmental Science journals

One impactful portfolio for every exceptional mind

Harnessing the power of interdisciplinary science to preserve our environment

rsc.li/envsci

Fundamental questions
Elemental answers

Registered charity number: 207890

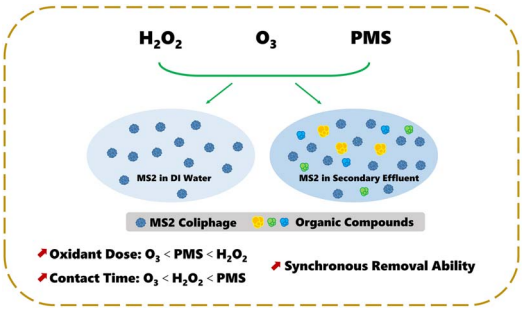
Open Access Article. Published on 22 May 2024. Downloaded on 1/19/2026 6:30:37 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

PAPERS

824

Ozone, hydrogen peroxide, and peroxymonosulfate disinfection of MS2 coliphage in water

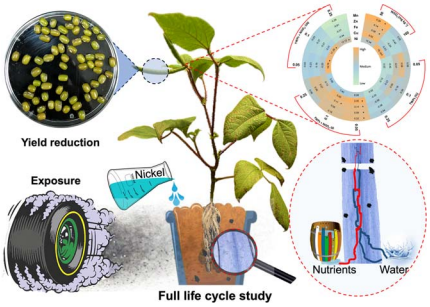
Zi-Chen Yang, Wen-Long Wang, Zi-Bo Jing, Yi-Qing Jiang, He-Qing Zhang, Min-Yong Lee, Lu Peng* and Qian-Yuan Wu



832

Co-exposure to tire wear particles and nickel inhibits mung bean yield by reducing nutrient uptake

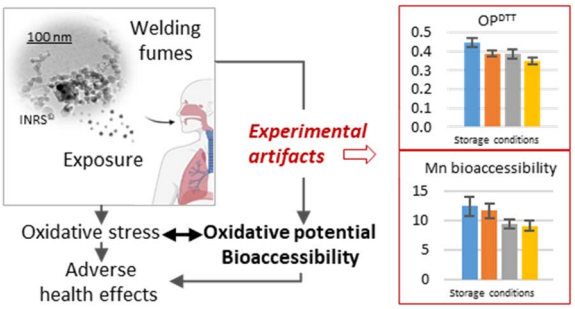
Imran Azeem, Muhammad Adeel,* Noman Shakoor, Muhammad Zain, Hamida Bibi, Kamran Azeem, Yuanbo Li, Muhammad Nadeem, Umair Manan, Peng Zhang, Jason C. White and Yukui Rui*



843

Experimental factors influencing the bioaccessibility and the oxidative potential of transition metals from welding fumes

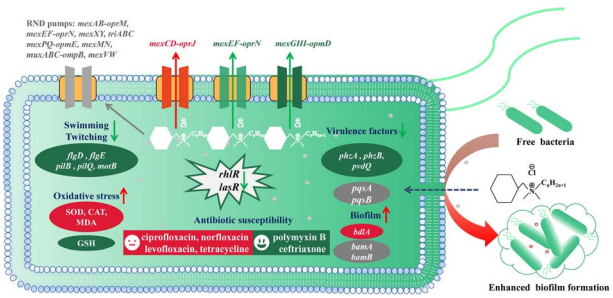
Manuella Ghanem, Laurent Y. Alleman, Davy Rousset,* Esperanza Perdrix and Patrice Coddeville



858

Co-culture of benzalkonium chloride promotes the biofilm formation and decreases the antibiotic susceptibility of a *Pseudomonas aeruginosa* strain

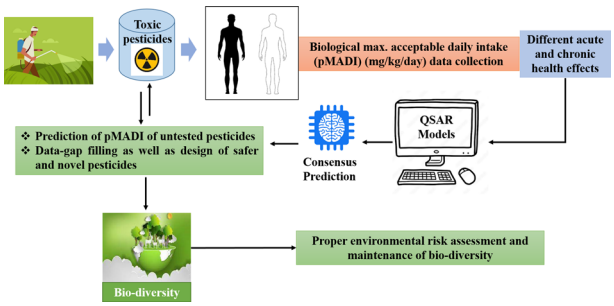
Caihong Wang, Qiao Ma,* Jiaxin Zhang, Nan Meng and Dan Xu



Open Access Article. Published on 22 May 2024. Downloaded on 1/19/2026 6:30:37 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

PAPERS

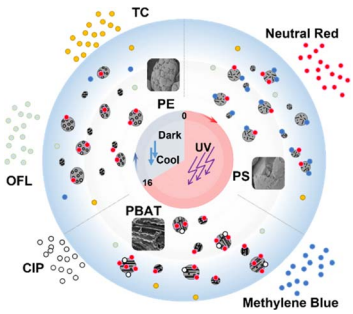
870



The first report on the assessment of maximum acceptable daily intake (MADI) of pesticides for humans using intelligent consensus predictions

Ankur Kumar, Probir Kumar Ojha* and Kunal Roy*

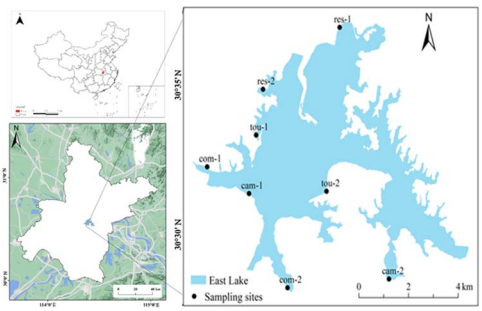
882



Characteristics and adsorption behavior of typical microplastics in long-term accelerated weathering simulation

Fei Yu, Qiyu Qin, Xiaochen Zhang and Jie Ma*

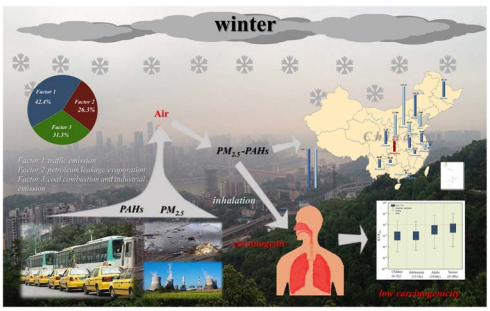
891



Impacts of rainfall and lakeshore soil properties on microplastics in inland freshwater: A case study in Donghu Lake, China

Yan Jiang, Yinuo Yang, Chenxi Zhan and Bo Cheng*

902



Probing the occurrence, sources and cancer risk assessment of polycyclic aromatic hydrocarbons in $PM_{2.5}$ in a humid metropolitan city in China

Decai Liu, Xingquan Li, Jiaxin Liu, Fengwen Wang,* Yan Leng, Zhenliang Li, Peili Lu and Neil L. Rose

This journal is © The Royal Society of Chemistry 2024

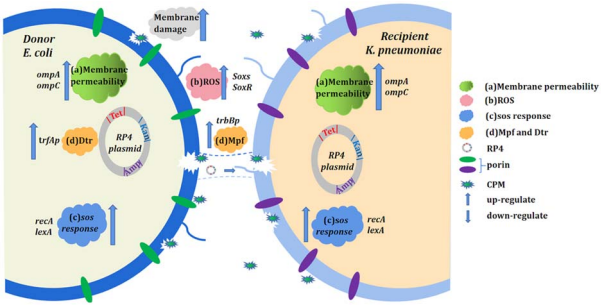
Open Access Article. Published on 22 May 2024. Downloaded on 1/19/2026 6:30:37 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

PAPERS

915

Carbonaceous particulate matter promotes the horizontal transfer of antibiotic resistance genes

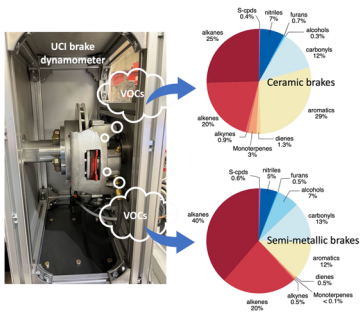
Xuexia Peng, Jiake Zhou, Zishu Lan, Rong Tan, Tianjiao Chen, Danyang Shi, Haibei Li, Zhongwei Yang, Shuqing Zhou, Min Jin, Jun-Wen Li* and Dong Yang*



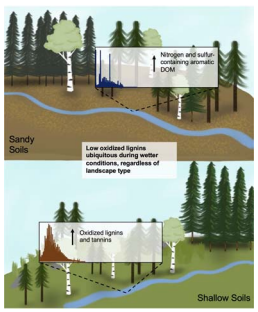
928

Unrecognized volatile and semi-volatile organic compounds from brake wear

V. Perraud, D. R. Blake, L. M. Wingen, B. Barletta, P. S. Bauer, J. Campos, M. J. Ezell, A. Guenther, K. N. Johnson, M. Lee, S. Meinardi, J. Patterson, E. S. Saltzman, A. E. Thomas, J. N. Smith* and B. J. Finlayson-Pitts*



942

The molecular diversity of dissolved organic matter in forest streams across central Canadian boreal watersheds

V. Mangal,* W. Y. Lam, E. J. S. Emilson, R. W. Mackereth and C. P. J. Mitchell*