

Environmental Science Water Research & Technology

rsc.li/es-water

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 2053-1400 CODEN ESWRAR 10(9) 1985–2256 (2024)



Cover

See Subhabrata Dev, Srijan Aggarwal et al., pp. 2020–2029.
Image reproduced by permission of Subhabrata Dev, Nicole Misarti and Srijan Aggarwal from *Environ. Sci.: Water Res. Technol.*, 2024, **10**, 2020.



Inside cover

See Ejaz Hussain, Khezina Rafiq et al., pp. 2030–2047.
Image reproduced by permission of Ejaz Hussain from *Environ. Sci.: Water Res. Technol.*, 2024, **10**, 2030.

CRITICAL REVIEW

1994

Per- and polyfluoroalkyl substance separation by NF and RO membranes: a critical evaluation of advances and future perspectives

Sharafat Ali,* Ruinan Wang, Haiou Huang, Shunde Yin* and Xianshe Feng

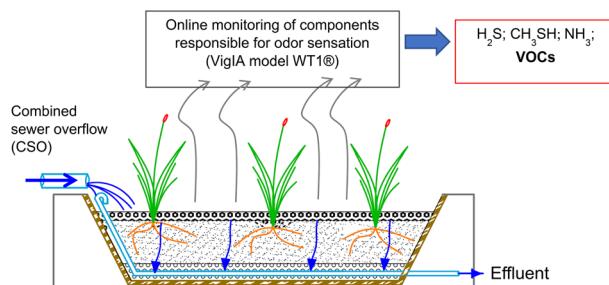


COMMUNICATION

2013

First report of components responsible for odor sensation from a vertical flow constructed wetland treating combined sewer overflow

Ismael L. Vera-Puerto,* Shraban Sarkar, Gianfranco Moris, Hugo Valdés, Marco Quiroz, Juan López, Francisco Encina, Pascal Molle and Carlos A. Arias





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



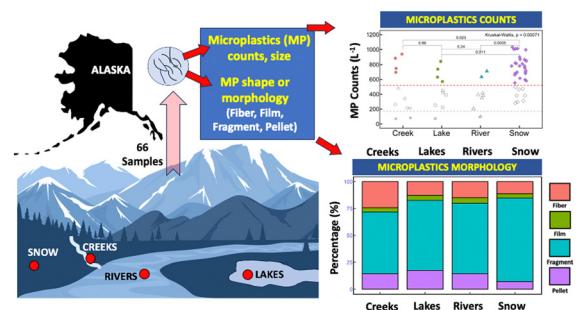
Registered charity number: 207890

PAPERS

2020

Unveiling microplastics pollution in Alaskan waters and snow

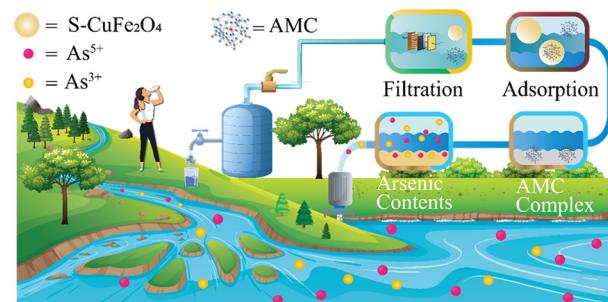
Subhabrata Dev,* Davis Schwarz, Muradur Rashedin, Md Ibnul Hasan, Darya Kholodova, Shane Billings, David L. Barnes, Nicole Misarti, Navid B. Saleh and Sriyan Aggarwal*



2030

A report on arsenic removal from water via adsorption of an arsenomolybdate complex on S-CuFe₂O₄ adsorbents

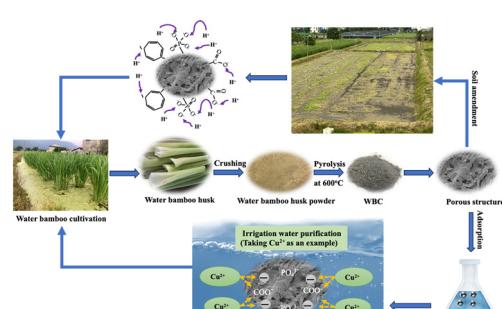
Ejaz Hussain,* Meryam Sultana, Muhammad Zeeshan Abid, Aqsa Khan Buzdar, Hamdy Khamees Thabet, Salah M. El-Bahy, Muhammad Jalil, Abdul Rauf, Zeinhom M. El-Bahy and Khezina Rafiq*



2048

The application of water bamboo (*Zizania latifolia*) husk-derived biochar for copper-contaminated irrigation water treatment and soil amendment

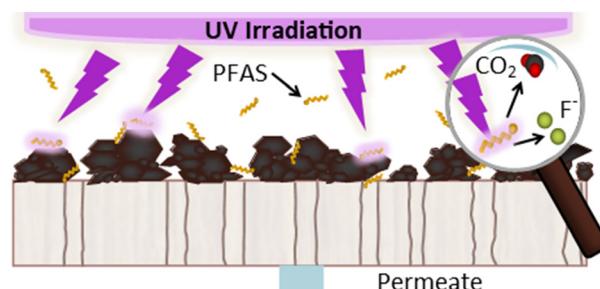
Thi-Manh Nguyen, Hung-Hsiang Chen, Chih-Chi Yang, Yung-Pin Tsai, Ming-Yu Kuo, Yi-Tang Liao, Yu-Chen Chang and Ku-Fan Chen*



2062

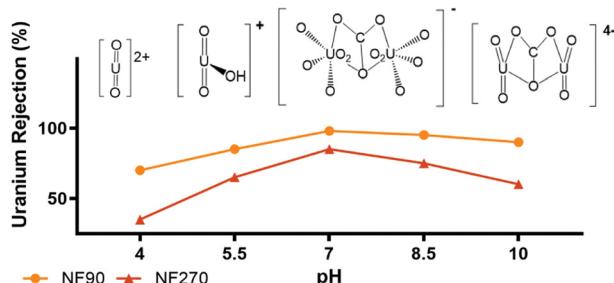
Emerging investigator series: photocatalytic treatment of PFAS in a single-step ultrafiltration membrane reactor

Allyson Leigh Junker, Frederick Munk S. Christensen, Lu Bai, Mads Koustrup Jørgensen, Peter Fojan, Alaa Khalil and Zongsu Wei*



PAPERS

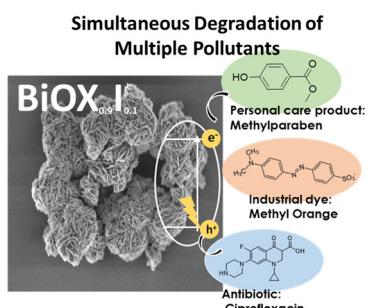
2075



Uranium rejection with nanofiltration membranes and the influence of environmentally relevant mono- and divalent cations at various pH

Christopher B. Yazzie, Catalina Elias and Vasiliki Karanikola*

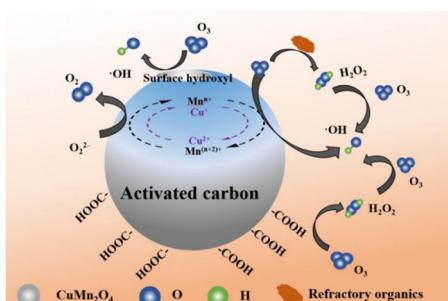
2087



Efficient visible-light-driven photocatalysis: simultaneous degradation of multiple pollutants with bismuth oxyhalide solid solutions

Helena Pérez del Pulgar, Josefa Ortiz-Bustos, Santiago Gómez-Ruiz, Isabel del Hierro* and Yolanda Pérez*

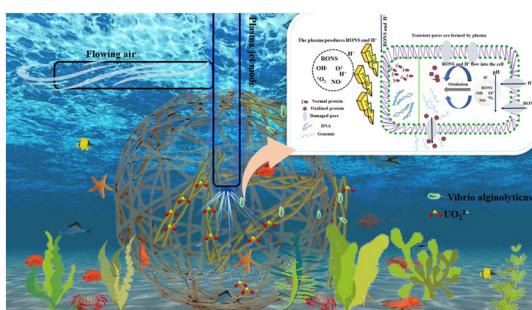
2103



Synergistic effect by supported activated carbon between functional groups and metal oxygen vacancies: enhancing ibuprofen degradation by improving ozone mass transfer

Junda Lai, Zizheng Huangfu, Jiewen Xiao, Zhenbei Wang, Yatao Liu, Chen Li, Fan Li, Yunhan Jia, Qiang Wang, Fei Qi,* Amir Ikhlaq, Jolanta Kumirska, Ewa Maria Siedlecka and Oksana Ismailova

2121



Solving the biofouling problem of uranium extraction from seawater by plasma technology

Xue Zhang and Dadong Shao*

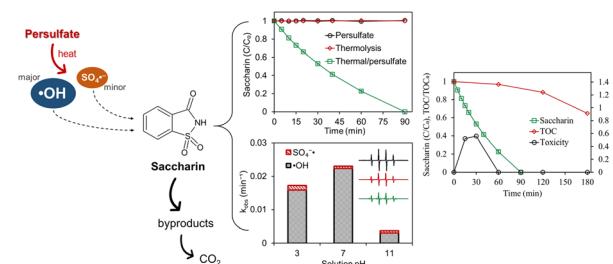


PAPERS

2130

Efficacy and mechanism of the artificial sweetener saccharin degradation by thermally activated persulfate in aquatic environments

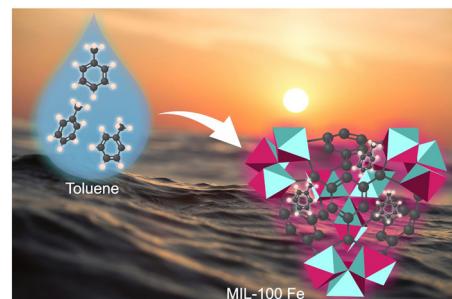
Webber Wei-Po Lai* and Chia-Ming Chang



2142

Efficient and effective removal of toluene from aqueous solution using MIL-100(Fe)

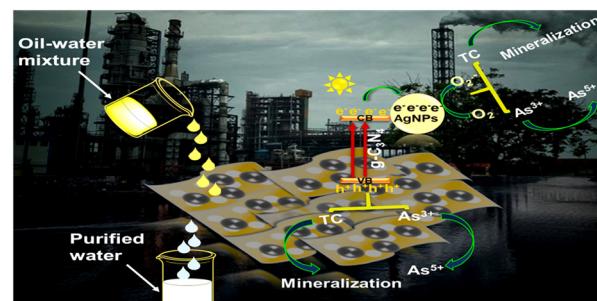
Catalina V. Flores, Juan L. Obeso, Herlys Viltres, Ricardo A. Peralta,* Illich A. Ibarra* and Carolina Leyva*



2148

A graphitic carbon nitride-based efficient nanocomposite: low cost and stupefying photocatalyst for the degradation of tetracycline and As³⁺ in wastewater

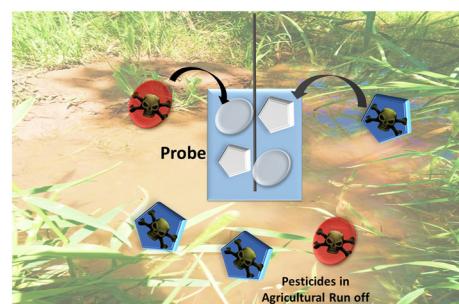
Kabir Hussain Badagoppam Haroon, Varsha UshaVipinachandran, Santanu Bera, Vijay Sithaiyan and Susanta Kumar Bhunia*



2162

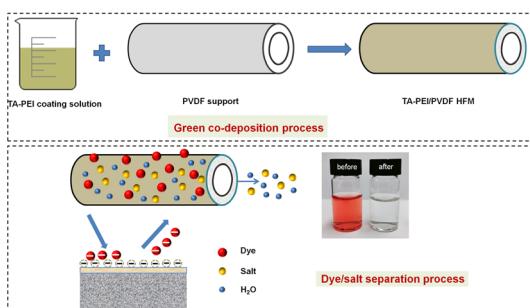
Graphene oxide-based probe for detecting deltamethrin and emamectin benzoate pesticides in agricultural run-off

Suryya Manzoor, Muhammad Hayat, Hina Raza, Noureddine Elboughdiri,* Muhammad Imran Khan, Zeeshan Ali, Ayesha Javed, Nadeem Raza, Fahad Abdulaziz and Abdallah Shanableh



PAPERS

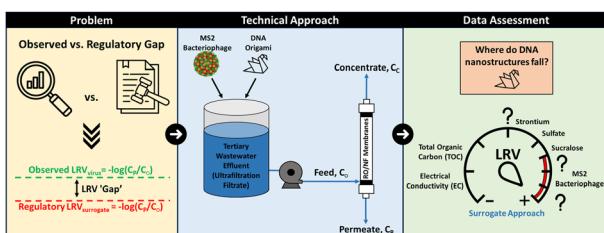
2177



Selective separation of dye/salt mixtures via a tannic acid-polyethylenimine-modified hollow fiber membrane with high flux

Chuanfeng Wang,* Qian Chen, Jiapeng Yang and Lina Ge

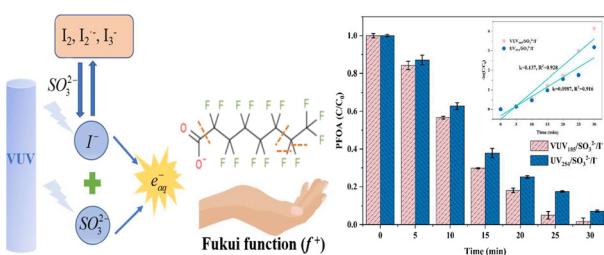
2188



DNA origami: thinking 'outside the fold' for direct integrity testing of membranes for virus removal in potable reuse applications

Hannah Ray, Katerina Papp, Leopold Green, Boo Shan Tseng, Eric Dickenson and Daniel Gerrity*

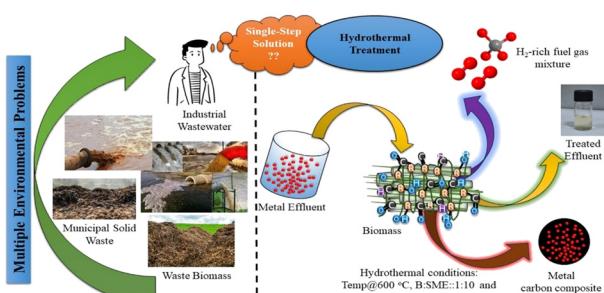
2201



Enhanced removal of perfluorooctanoic acid by VUV/sulfite/iodide: efficiencies, influencing factors, and decomposition mechanism

Hong Liu, Ruibao Jia,* Xiaodong Xin, Weilin Guo, Wei Li, Mingquan Wang and Shaohua Sun

2213



Hydrothermal metal recovery of metal-contaminated wastewater with forest residue: a zero waste discharge process

Pankaj Kumar and Sivamohan N. Reddy*

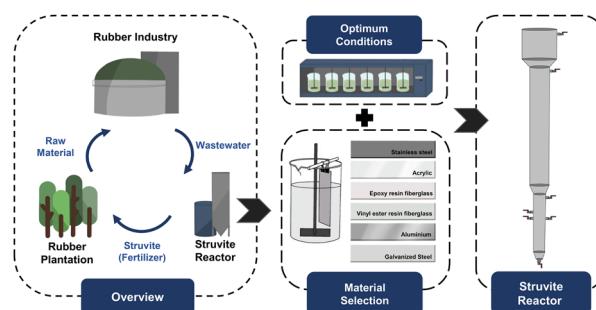


PAPERS

2230

Development of a fluidized bed reactor for phosphorus recovery from rubber industry wastewater through struvite formation: material selection and prototype

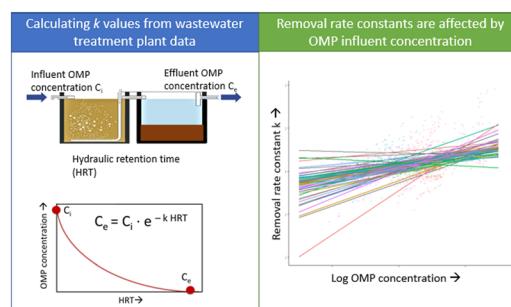
Danai Maddewor, Patiya Kemacheevakul,* Nipaphan Phungsombun, Pongsavat Savatdipap and Surawut Chuangchote



2243

Removal rate constants are not necessarily constant: the case of organic micropollutant removal in wastewater treatment plants

Tamara J. H. M. van Bergen,* A. M. Schipper, D. Mooij, A. M. J. Ragas, M. W. Kuiper, A. J. Hendriks, M. A. J. Huijbregts and R. van Zelm*



CORRECTION

2253

Correction: Removal rate constants are not necessarily constant: the case of organic micropollutant removal in wastewater treatment plants

Tamara J. H. M. van Bergen,* A. M. Schipper, D. Mooij, A. M. J. Ragas, M. W. Kuiper, A. J. Hendriks, M. A. J. Huijbregts and R. van Zelm*