# 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

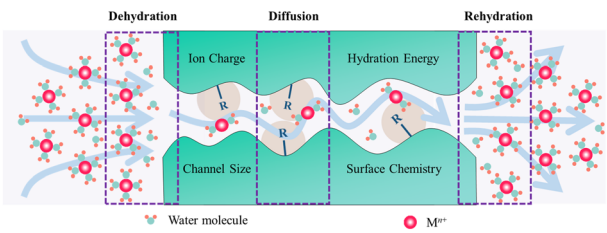
ISSN 2053–1400 CODEN ESWRAR 10(6) 1297–1518 (2024)


**Cover**
See Xinlei Jiang, Xin Wang *et al.*, pp. 1355–1364.
Image reproduced by permission of Xin Wang from *Environ. Sci.: Water Res. Technol.*, 2024, **10**, 1355.


**Inside cover**
See Laemthong Chuenchom, Decha Dechtrirat *et al.*, pp. 1365–1376.
Image reproduced by permission of Parichart Onsri from *Environ. Sci.: Water Res. Technol.*, 2024, **10**, 1365.

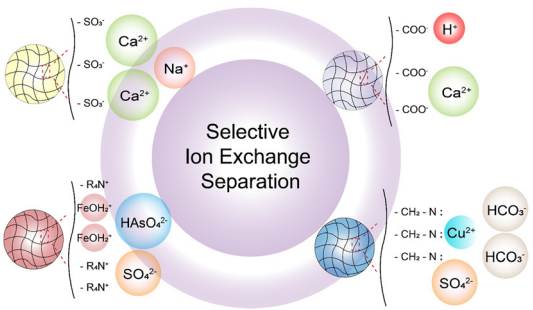
## TUTORIAL REVIEW





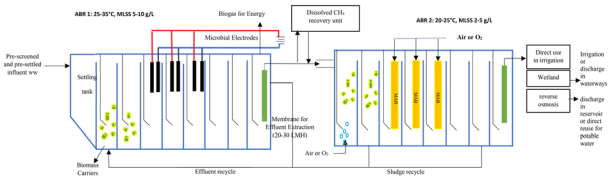

## CRITICAL REVIEWS





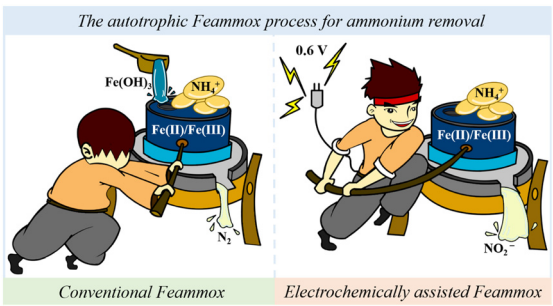
## CRITICAL REVIEWS



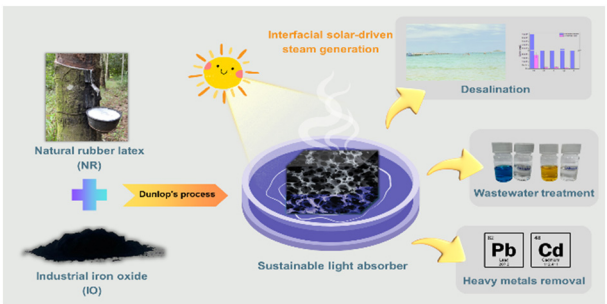



## PAPERS

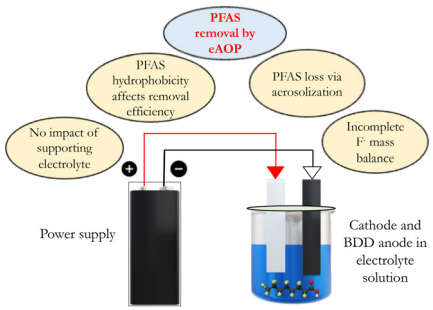






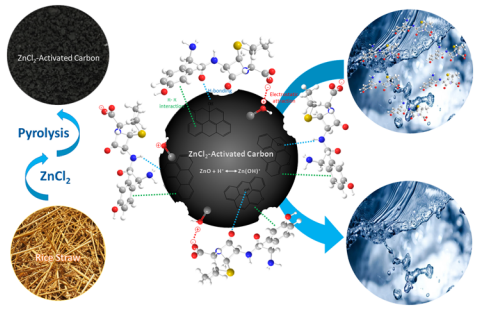





PAPERS

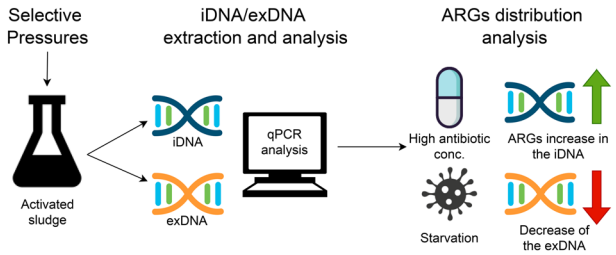
1389




## $ZnCl_2$ activated mesoporous carbon from rice straw: optimization of its synthetic process and its application as a highly efficient adsorbent for amoxicillin

Suwiwat Sangon, Kanokwan Kotebantao, Theerakan Suyala, Yuvarat Ngernyen, Andrew J. Hunt and Nontipa Supanchaiyamat*

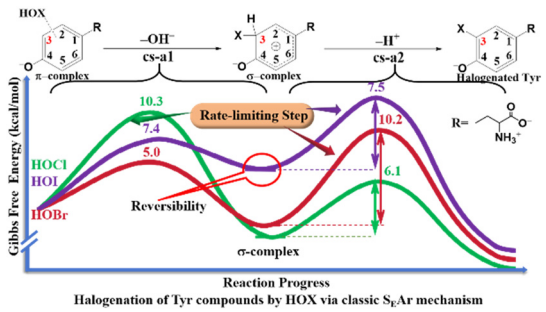
1406




## Antibiotic resistance response of activated sludge to sulfamethoxazole: insights from the intracellular and extracellular DNA fractions

M. Martínez-Quintela,* D. Calderón-Franco, M. C. M. van Loosdrecht, S. Suárez, F. Omil and D. G. Weissbrodt

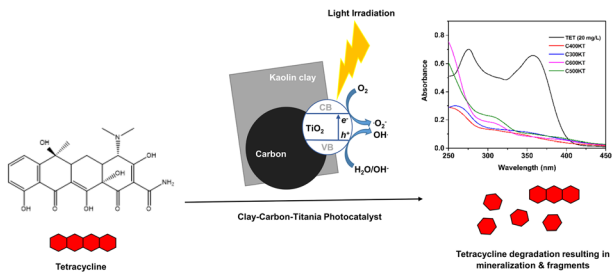
1421




## New insights into the iodination mechanism of tyrosine and its dipeptides and comparison with chlorination and bromination reactions

Yue Qiu, Yong Dong Liu* and Rugang Zhong

1432




## Orange peel biochar/clay/titania composites: low cost, high performance, and easy-to-reuse photocatalysts for the degradation of tetracycline in water

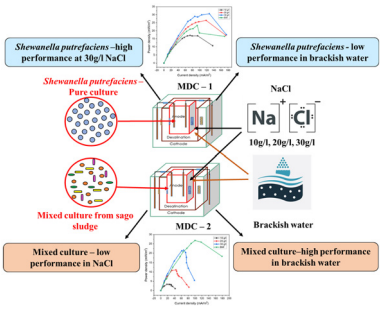
Morenike O. Adesina, Moses O. Alfred, Harald Seitz, Katlen Brennenstuhl, Harshadrai M. Rawel, Pablo Wessig, Jiyong Kim, Armin Wedel, Wouter Koopman, Christina Günter, Emmanuel I. Unuabonah and Andreas Taubert*

PAPERS

1451

## Harnessing exoelectrogens in a novel microbial desalination cell: a study on the impact of salinity on sago effluent treatment and power generation

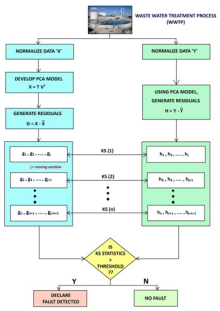
Sandhya Prakash, Samsudeen Naina Mohamed and Kalaichelvi Ponnusamy*




1464

## Enhanced data-driven monitoring of wastewater treatment plants using the Kolmogorov–Smirnov test

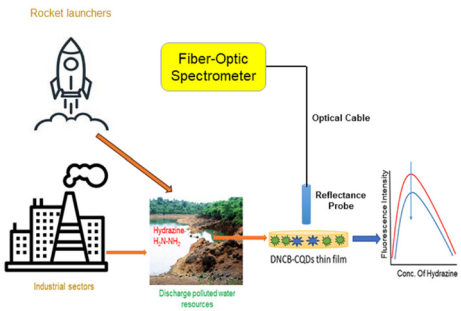
K. Ramakrishna Kini, Fouzi Harrou,* Muddu Madakyaru* and Ying Sun



1481

## Fiber-optic thin film chemical sensor of 2,4 dinitro-1-chlorobenzene and carbon quantum dots for the point-of-care detection of hydrazine in water samples

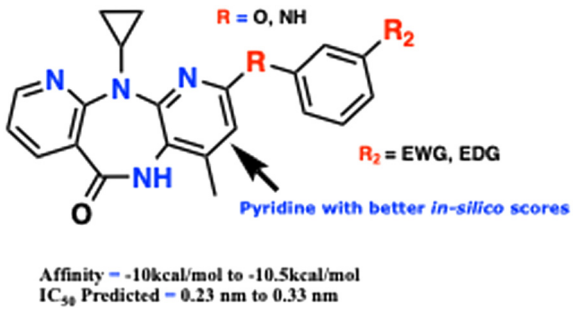
Tanmay Vyas, Hritik Kumar, Gunjan Nagpure and Abhijeet Joshi*




1492

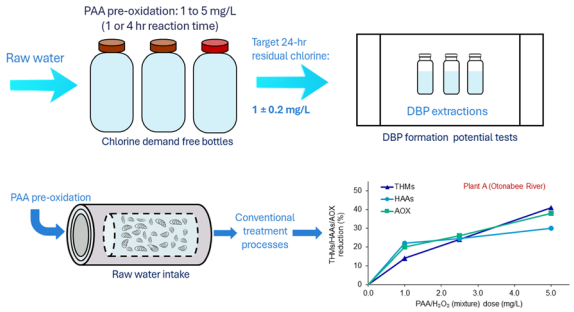
## Artificial neural network-based QSAR model for predicting degradation techniques of pharmaceutical contaminants in water bodies with experimental verification

Jhon Alex González-Amaya, Andrea Nadith Niño-Colmenares, Andrés Felipe Cárdenas-Rodríguez and James Guevara-Pulido*



PAPERS

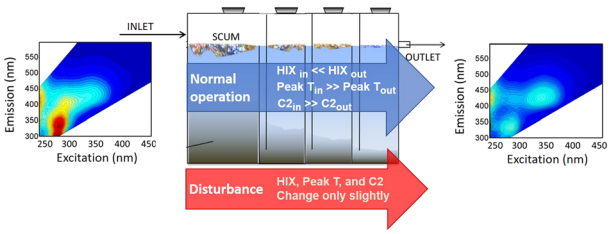
1499




## Peracetic acid to reduce disinfection by-product formation in drinking water

Subhajit Mondal,* Erin Mackey and Ron Hofmann

1506




## Tracking performance and disturbance in decentralized wastewater treatment systems with fluorescence spectroscopy

Natalie Mladenov,* Scott Sanfilippo, Laura Panduro, Chelsi Pascua, Armando Arteaga and Bjoern Pietruschka