

# Environmental Science Water Research & Technology

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## IN THIS ISSUE

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



**Cover**  
See Xinlei Jiang, Xin Wang *et al.*, pp. 1355–1364.  
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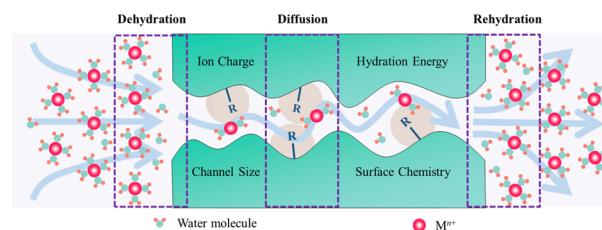
**Inside cover**  
See Laemthong Chuenchom, Decha Dechthirat *et al.*, pp. 1365–1376.  
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## TUTORIAL REVIEW

1305

### Mechanism of lithium ion selectivity through membranes: a brief review

Jian Zhang, Qiang Gao, Bo Han\* and Chenggang Zhou

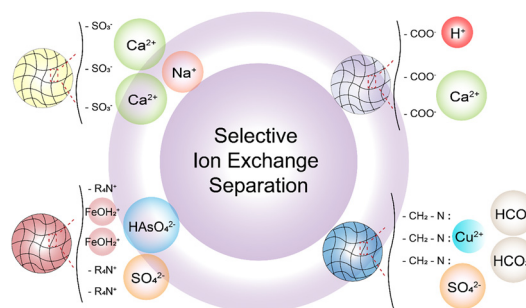


## CRITICAL REVIEWS

1319

### Ion exchange enabled selective separation from decontamination to desalination to decarbonization: recent advances and opportunities

Dian Wang, Yunhao Zhang, Hang Dong,\* Hao Chen and Arup SenGupta\*



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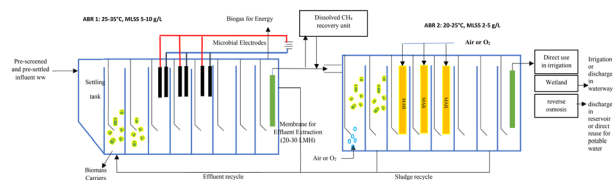
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## CRITICAL REVIEWS

1335

## A review of modified and hybrid anaerobic baffled reactors for municipal wastewater treatment with a focus on emerging contaminants

Poh Lin Lau and Antoine P. Trzcinski\*

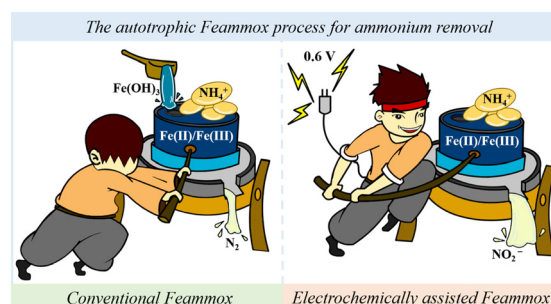


## PAPERS

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## Bioelectrochemically enhanced autotrophic Feammox for ammonium removal via the Fe(II)/Fe(III) cycle

Tuo Wang, Jiayao Zhang, Ziyuan Wang, Qian Zhao, Yue Wu, Nan Li, Xinlei Jiang\* and Xin Wang\*



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## Efficient solar-driven steam generation for clean water production using a low-cost and scalable natural rubber composite sponge

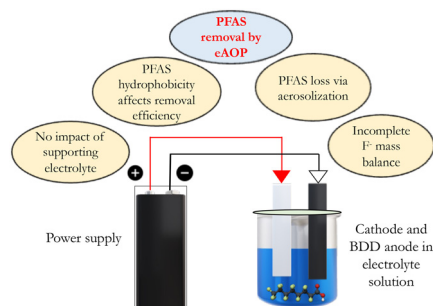
Parichart Onsri, Piyatida Thaveemas, Pongthep Prajongtat, Whijitra Suvandee, Supanna Techasakul, Laemthong Chuenchom\* and Decha Dechtrirat\*



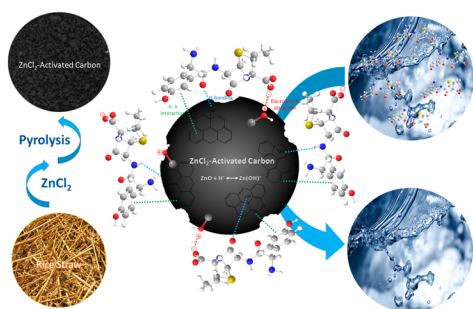
1377

## Effect of chain length, electrolyte composition and aerosolization on the removal of per- and polyfluoroalkyl substances during electrochemical oxidation

Kaushik Londhe and Arjun K. Venkatesan\*



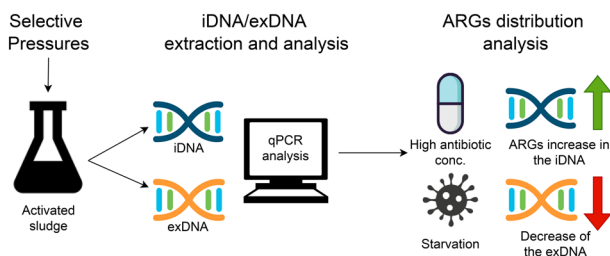
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### ZnCl<sub>2</sub> activated mesoporous carbon from rice straw: optimization of its synthetic process and its application as a highly efficient adsorbent for amoxicillin

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

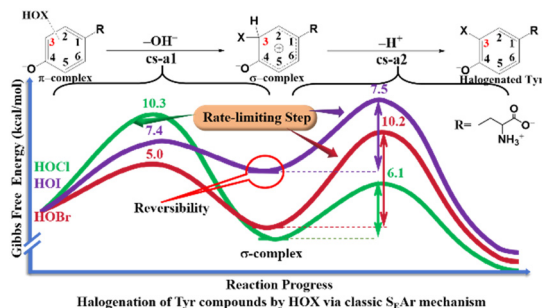
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### Antibiotic resistance response of activated sludge to sulfamethoxazole: insights from the intracellular and extracellular DNA fractions

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

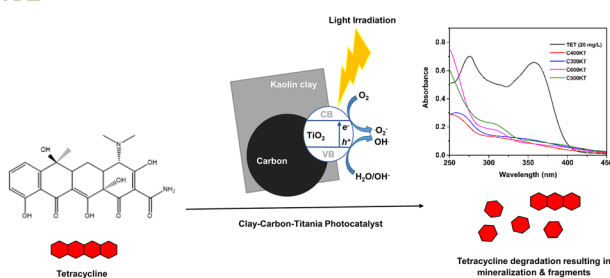
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### New insights into the iodination mechanism of tyrosine and its dipeptides and comparison with chlorination and bromination reactions

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

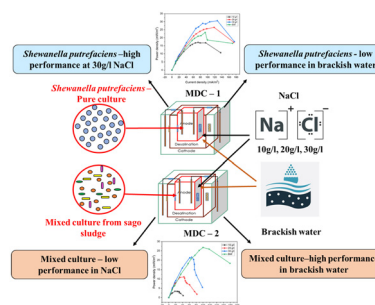
Morenike O. Adesina, Moses O. Alfred, Harald Seitz, Katlen Brennenstuhl, Harshadrai M. Rawel, Pablo Wessig, Jiyong Kim, Armin Wedel, Wouter Koopman, Christina Günter, Emmanuel I. Unuabonah and Andreas Taubert\*



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

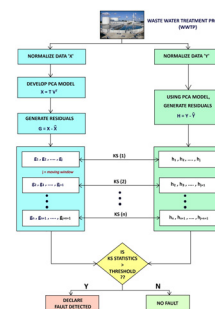
Sandhya Prakash, Samsudeen Naina Mohamed and Kalaichelvi Ponnusamy\*



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

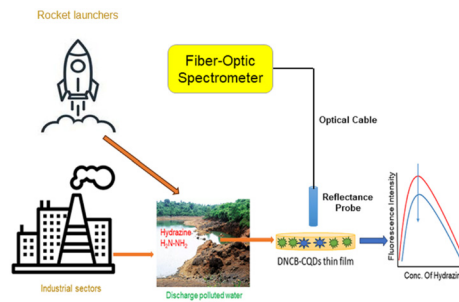
K. Ramakrishna Kini, Fouzi Harrou,\* Muddu Madakyaru\* and Ying Sun



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

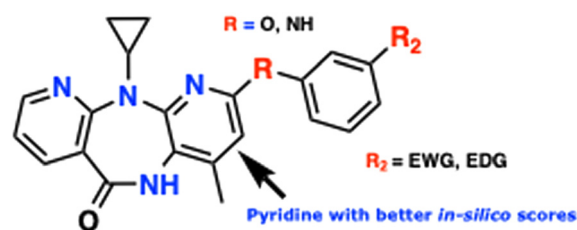
Tanmay Vyas, Hritik Kumar, Gunjan Nagpure and Abhijeet Joshi\*



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

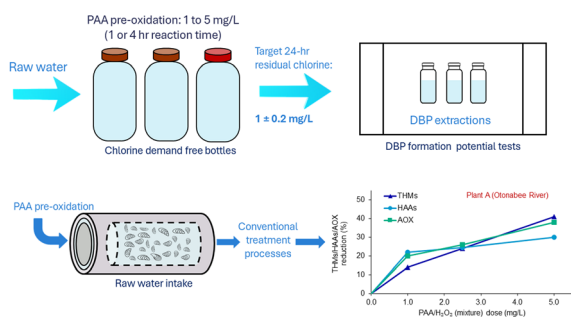
Jhon Alex González-Amaya, Andrea Nadith Niño-Colmenares, Andrés Felipe Cárdenas-Rodríguez and James Guevara-Pulido\*



Affinity = -10kcal/mol to -10.5kcal/mol  
IC<sub>50</sub> Predicted = 0.23 nm to 0.33 nm



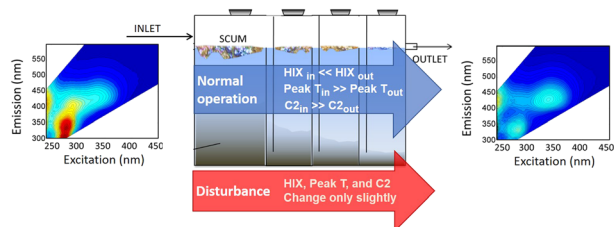
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## Peracetic acid to reduce disinfection by-product formation in drinking water

Subhajit Mondal,\* Erin Mackey and Ron Hofmann

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## 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

