

Environmental Science Water Research & Technology

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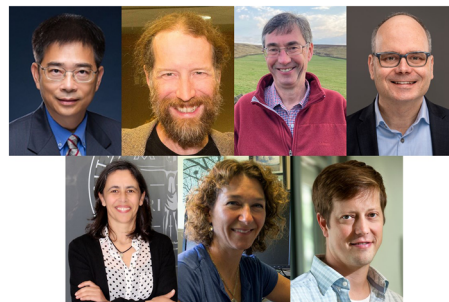
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Junhong Lü *et al.*,
pp. 1804–1812.
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Technol.*, 2023, 9, 1804.

EDITORIAL

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Best Papers from 2022 published in the *Environmental Science* journals of the Royal Society of Chemistry

Zongwei Cai, Neil Donahue, Kevin C. Jones,
Kristopher McNeill, Célia Manaia, Paige J. Novak
and Peter J. Vikesland

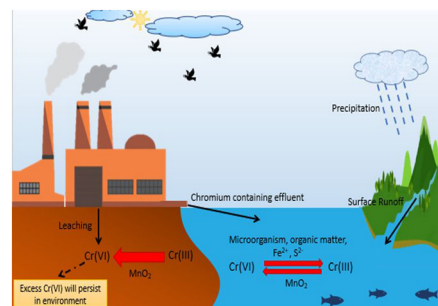


CRITICAL REVIEW

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A review on environmental chemodynamics, isothermal, kinetics, and thermodynamics modeling for the adsorptive removal of Cr(VI) from the industrial effluent using magnetic nanoparticles as a bio-sorbent

Rekah Nadarajah, Md. Sohrab Hossain,*
Md Bazlul Mobin Siddique, Md. Azharul Arafath,
Mu. Naushad, Jun Wei Lim, Adel Al-Gheethi
and Harlina Ahmad*



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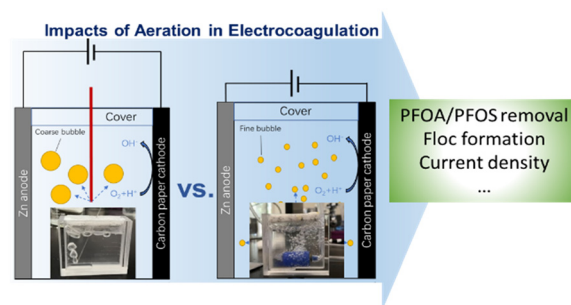
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1783

Emerging investigator series: impacts of aeration flow rates and bubble sizes on PFOA/PFOS removal in electrocoagulation

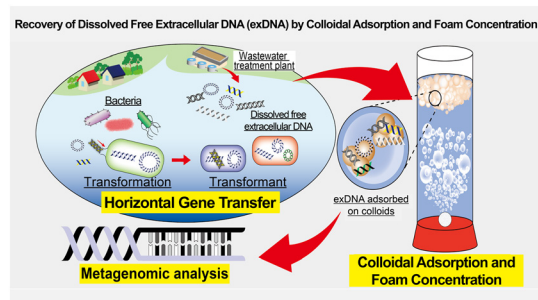
Tianhong Mu and Kyoung-Yeol Kim*



1792

Highly sensitive detection and quantification of dissolved free extracellular DNA using colloid adsorption and foam concentration

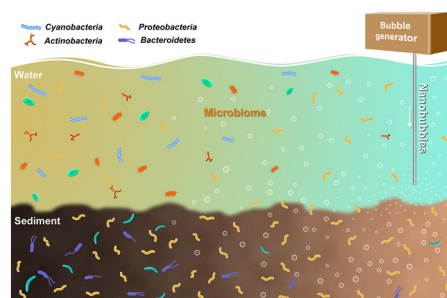
Soichiro Tamai, Yoshitoshi Ogura, Miki Okuno, Kei Nukazawa and Yoshihiro Suzuki*



1804

Nanobubbles can modulate microbial communities and sedimentary ecosystem during the treatment of pond water

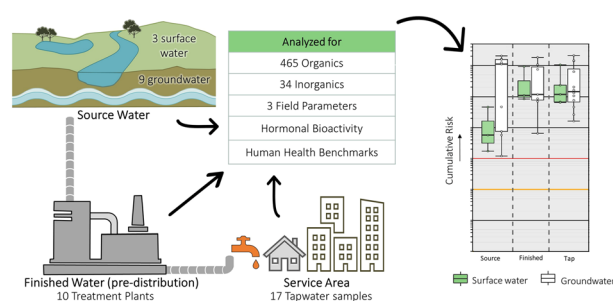
Yadi Wang, Jin Zheng, Jie Cheng, Runlong Zhou, Xueling Li,* Jun Hu and Junhong Lü*



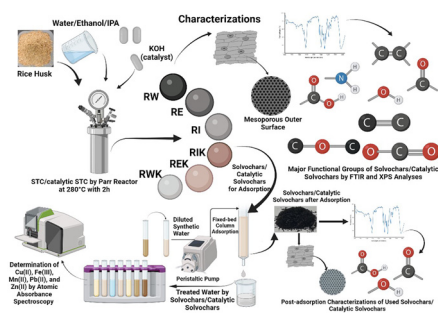
1813

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Kelly L. Smalling,* Paul M. Bradley, Kristin M. Romanok, Sarah M. Elliot, Jane de Lambert, Michael J. Focazio, Stephanie E. Gordon, James L. Gray, Leslie K. Kanagy, Michelle L. Hladik, Keith A. Loftin, R. Blaine McCleskey, Elizabeth K. Medlock-Kakaley, Mary C. Cardon, Nicola Evans and Christopher P. Weis



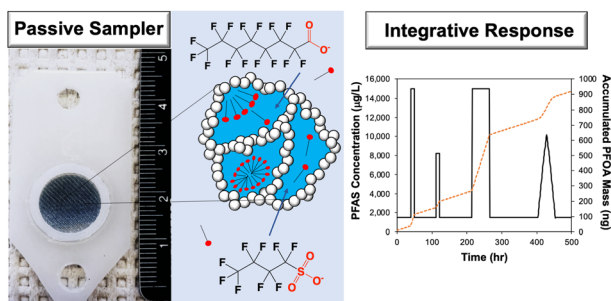
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Nazia Hossain,* Sabzoi Nizamuddin and Kalpit Shah

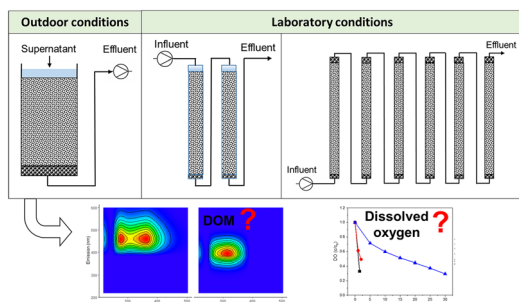
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Laboratory validation of an integrative passive sampler for per- and polyfluoroalkyl substances in water

Paul L. Edmiston,* Noah Hill, Riley Hershberger, Heather Hartmann, Erika Carter and Craig Divine

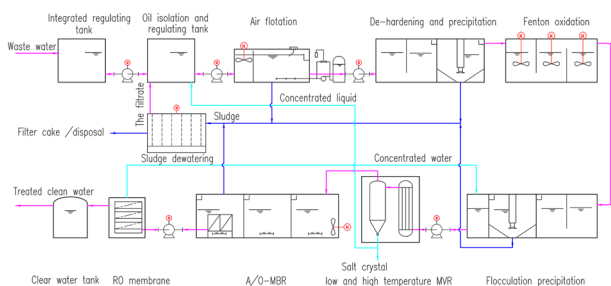
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Changes in dissolved organic matter and oxygen consumption in different bank filtration simulations at different scales

Muhammad Zeeshan,* Sondra Klitzke and Aki Sebastian Ruhl

1870



Shale gas fracturing flowback water deep treatment engineering – a case study

Hongmei Yang, Wenfeng Huang and Ping Yang*

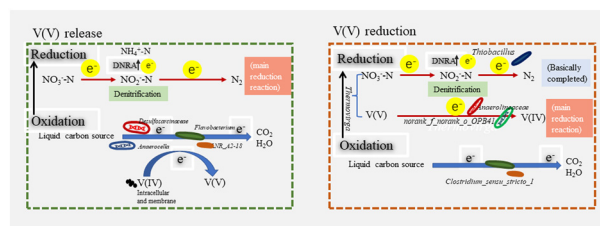


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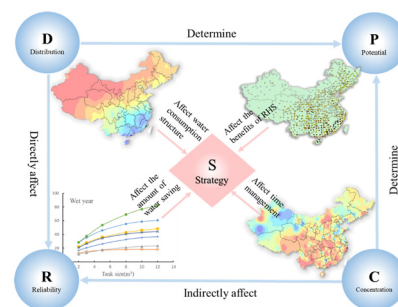
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1903

Comprehensive evaluation of rainwater utilization in China: potential, feasibility and strategy

Chen Zhang, Jianghua Yu* and Chang Ling

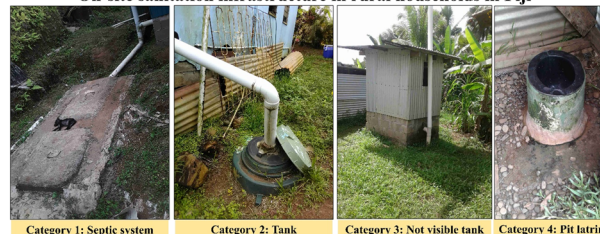


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Understanding on-site sanitation in rural Fiji: where definitions of sanitation back-ends differ

Nabeela Nasim,* Shylett Anthony, Thompson Daurewa, Sikeli Gavidu, Pierre Horwitz, Aaron Jenkins, Stacy Jupiter, Shuang Liu, Kinikoto Mailautoka, Sangeeta Mangubhai, Kelera Naivalu, Timoci Naivalulevu, Vilisi Naivalulevu, Sikeli Naucunivanua, Joel Negin, Mereia Ravoka, Andrew Tukana, Donald Wilson and Jacqueline Thomas

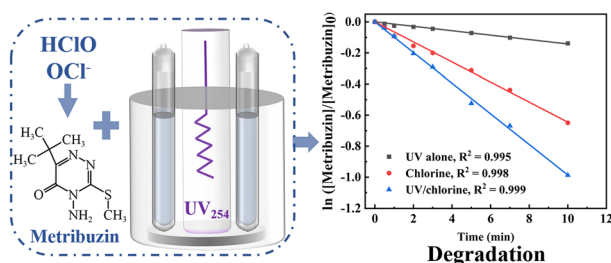
On-site sanitation infrastructure in rural households in Fiji



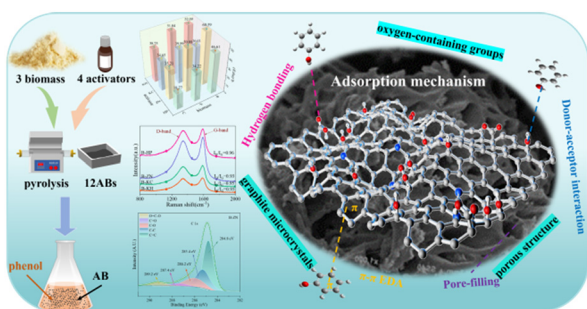
1932

Degradation of metribuzin in the UV/chlorine process: kinetic model, degradation by-products and transformation pathways

Chen-Yan Hu, Dan-Dan Huang, Yi-Li Lin,* Qiang-Bing Wang, Ling Xu, Zi-Yi Dong, Yi-Hui Wu and Sheng-Jie Ji



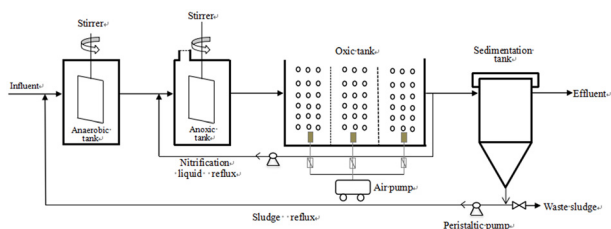
1944



Coupling behavior and enhancement mechanism of porous structure, graphite microcrystals, and oxygen-containing groups of activated biochar for the adsorption of phenol

Jiamin Ma, Garg Ankit, Fei Zhong, Chuyi Li, Nian Liu, Wenjuan Niu* and Hongliang Cao*

1958



The study on the changing pattern of microbial community function and phenotypes in anaerobic-anoxic-oxic (A²O) process under the influence of temperatures in plateau habitats

Xiangyu Chen, Lishuai Zhao, Yongchen Zong* and Kaiyue Hao*

