

Environmental Science Water Research & Technology

788

Emerging investigators series: sewer surveillance for monitoring antibiotic use and prevalence of antibiotic resistance: urban sewer epidemiology

Nicole Fahrenfeld* and Kevin J. Bisceglia

Sewer surveillance may be a useful tool for epidemiology that would benefit from improved understanding of the fate of microbial agents and prescription antibiotics during conveyance in sewer systems.

800

Electrochemical technologies for wastewater treatment and resource reclamation

Yujie Feng,* Lisha Yang, Junfeng Liu and Bruce E. Logan

Electrochemical processes that can be used for wastewater treatment and resource reclamation are reviewed with suggestions for future research directions.

832

A novel multi-stage microbial desalination cell for simultaneous desalination and enhanced organics and nitrogen removal from domestic wastewater

Kuichang Zuo, Fubin Liu, Shiting Ren, Xiaoyuan Zhang, Peng Liang* and Xia Huang*

A multistage microbial desalination cell fabricated by combining electrodialysis with an alternating anaerobic/oxic process realized simultaneous desalination and enhanced organics/nitrogen removal from domestic wastewater.

838

Emerging investigators series: disinfection by-products in mixed chlorine dioxide and chlorine water treatment

Wenhui Gan, Huang Huang, Xin Yang,* Ziru Peng and Guanghao Chen*

On-site generation of ClO_2 often involves the production of Cl_2 as impurity and the changes of disinfection by-products formation by mixed disinfectant (ClO_2/Cl_2) was presented.

848

Performance of a composite bioactive membrane for H_2 production and capture from high strength wastewater

Ana L. Prieto, Louis H. Sigtermans, Baris R. Mutlu, Alptekin Aksan, William A. Arnold* and Paige J. Novak*

In this study, a composite bioactive membrane was developed and tested to generate and capture hydrogen (H_2) during the process of wastewater treatment.

858

Engineering a membrane based air cathode for microbial fuel cells *via* hot pressing and using multi-catalyst layer stacking

Wulin Yang and Bruce E. Logan*

Microbial fuel cell (MFC) cathodes must have high performance and be resistant to water leakage.

Understanding the hydrologic impacts of wastewater treatment plant discharge to shallow groundwater: before and after plant shutdown

Laura E. Hubbard,* Steffanie H. Keefe, Dana W. Kolpin, Larry B. Barber, Joseph W. Duris, Kasey J. Hutchinson and Paul M. Bradley

WWTP cessation is a rare environmental event with far-ranging hydrologic effects. Results have implications for shallow-groundwater recharge and WWTP-derived contamination kilometers downstream from the outfall.

Point-of-use water filters can effectively remove disinfection by-products and toxicity from chlorinated and chloraminated tap water

Daniel Stalter,* Elissa O'Malley, Urs von Gunten and Beate I. Escher

Tap water filters were evaluated for their efficacy to abate fluoride, bacteria, adsorbable organic halogens (sum parameter of halogenated DBPs), and mixtures of bioactive DBPs quantified by cell-based bioassays.

Integrating a microbial electrochemical system into a classical wastewater treatment configuration for removing nitrogen from low COD effluents

Sara Tejedor-Sanz, Tristano Bacchetti de Gregoris, Juan José Salas, Laura Pastor and Abraham Esteve-Núñez*

We investigated the adaptation of a classical oxic-anoxic chamber configuration to a microbial electrochemical system in order to remove both nitrogen and organic matter from low COD effluents.

Correction: Cyanobacterial management in full-scale water treatment and recycling processes: reactive dosing following intensive monitoring

Arash Zamyadi,* Rita K. Henderson, Richard Stuetz, Gayle Newcombe, Kelly Newton and Brendan Gladman