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**Microbial Fuel Cells:
working towards renewable
catalysts and sustainability**



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ON THE COVER: Microbial fuel cells are used to simultaneously produce electrical power and achieve wastewater treatment. The cover of this issue shows some of these reactors as well as a conventional wastewater treatment plant. Bacteria grow on the anode and generate the current, while typically inorganic catalysts (sometimes precious metals) are used on the cathode for improving oxygen reduction kinetics. In this issue microorganisms were also used to improve oxygen reduction kinetics of the cathode. Power production was improved relative to non-catalyzed surfaces and cathodes containing platinum, but only if the cathode was kept separate from the anode solution. Photo credit: Dr. Michael Siegart, Penn State University.

Policy Analysis

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[dx.doi.org/10.1021/es303217f](https://doi.org/10.1021/es303217f)

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1937  [dx.doi.org/10.1021/es304426j](https://doi.org/10.1021/es304426j)
Paper-Based Electrochemiluminescent Screening for Genotoxic Activity in the Environment
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1945  [dx.doi.org/10.1021/es305181x](https://doi.org/10.1021/es305181x)
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1952  [dx.doi.org/10.1021/es304502y](https://doi.org/10.1021/es304502y)
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Biodegradability of Corexit 9500 and Dispersed South Louisiana Crude Oil at 5 and 25 °C
Pablo Campo, Albert D. Venosa,* and Makram T. Suidan

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Experimental Energy Barriers to Anions Transporting through Nanofiltration Membranes
Laura A. Richards, Bryce S. Richards, Ben Corry, and Andrea I. Schäfer*

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Proof-of-Concept Study of an Aerobic Vapor Migration Barrier Beneath a Building at a Petroleum Hydrocarbon-Impacted Site
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Robert A. Urban and Bhavik R. Bakshi*

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Sanitation: A Global Estimate of Sewerage Connections without Treatment and the Resulting Impact on MDG Progress
Rachel Baum, Jeanne Luh, and Jamie Bartram*

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Integrating Empirically Dissolved Organic Matter Quality for WHAM VI using the DOM Optical Properties: A Case Study of Cu–Al–DOM Interactions
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Household Pesticide Contamination from Indoor Pest Control Applications in Urban Low-Income Public Housing Dwellings: A Community-Based Participatory Research
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2143 [dx.doi.org/10.1021/es400446w](https://doi.org/10.1021/es400446w)
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