

Special Issue

Environmental Catalysis: Special Topic on Microbial Fuel Cell and Wastewater Treatment

Message from the Guest Editors

Microbial fuel cells (MFCs) are devices that convert the chemical energy contained in organic substrates into electrical energy through the action of microorganisms. The use of wastewater as a raw material for this technology can be a sustainable way to combine electricity production with wastewater treatment. The mild operating conditions and reduction of energy consumption, sludge formation, and related costs are some of the advantages of using MFCs for wastewater treatment. However, some issues hinder its large-scale application, including low power output, difficulty scaling up the system, and the costs of materials, such as using proton exchange membranes and precious metals as catalysts. Therefore, this Special Issue aims to collect new research to address these issues, from the synthesis and characterization of low-cost catalysts to the development of alternative materials to replace membranes, cell design, biofilm activity, and the reaction kinetics and the modelling/simulation of MFCs.

Guest Editors

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