Special Issue

Advances in Microbial Electrochemical Technology

Message from the Guest Editors

Microbial electrochemistry, a burgeoning field characterized by the interaction between microorganisms and electrochemical systems, has paved the way for innovative applications in energy production, environmental remediation, and chemical synthesis. Microbial fuel cells (MFCs), microbial electrolysis cells (MECs), and microbial electrosynthesis (MES) are at the forefront of this research, offering sustainable solutions for energy generation and bioproduct synthesis. These systems leverage the unique capabilities of microorganisms to catalyze a wide range of reactions, including wastewater treatment, CO2 reduction, and the production of valuable chemicals.

Keywords: microbial fuel cells (MFCs); microbial electrolysis cells (MECs); microbial electrosynthesis (MES); electron transfer mechanisms; electrode materials and designs; microbial community engineering; in situ and in operando techniques; wastewater treatment; CO2 and N2 fixation; theoretical modeling; biofilm dynamics; integration with renewable energy sources; scale-up and commercialization

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Welcome to a new open access journal, Fermentation, which meets the growing need for a high quality peerreviewed international journal with easy access to all researchers globally. We hope that you will share our enthusiasm for this new journal and look forward to working with you to make Fermentation a leader in its field. Your contributions are vital for the success of this new journal. Proposals for editing a special issue for a particular topical area are always welcome.

Editor-in-Chief

Dr. Badal C. Saha
Retired, National Center for Agricultural Utilization Research, USDA-ARS, Peoria, IL, USA

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