

Special Issue

Microbiotechnology Tools for Wastewater Treatment and Waste Valorization

Message from the Guest Editors

Appropriate wastewater treatment before discharge can reduce the stress on fresh water bodies. Of the biological wastewater treatment technologies, membrane bioreactors (MBRs) yield high-quality effluent and require a small area. Recent developments in membrane materials have made MBRs more viable. Fouling is one of the main hinderances in the widespread use of this technology, and has attracted the attention of many researchers. Different physical, chemical and biological strategies have been developed to reduce this and make it more sustainable. This Special Issue aims to cover the recent biotechnological developments and advances in the area of MBRs for wastewater treatment, microbial communities present in wastewater and their role, quorum sensing and quorum quenching bacteria and their applications in MBR, new membrane materials and their interactions with biofilm communities, the role of biofilm communities in fouling, biofouling control strategies and their effect on MBR communities, biofilms and the role of suspended communities in nutrient removal, and combined and integrated MBRs and their microbial communities.

Guest Editors

Dr. Shamas Tabraiz

Section of Natural and Applied Sciences, Canterbury Christ Church University, Kent CT1 1QU, UK

Dr. Evangelos Petropoulos

Premier Tech Water and Environment, Peterlee, County Durham SR8 2RA, UK

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Fermentation
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
fermentation@mdpi.com

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Editor-in-Chief

Dr. Badal C. Saha
Retired, National Center for Agricultural Utilization Research, USDA-
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