Special Issue

Sustainable Biological Removal and Separation Processes in Wastewater Treatment

Message from the Guest Editors

In the context of energy crisis and climate warming, global wastewater treatment facilities are facing unprecedented challenges. It is of utmost importance to develop novel and sustainable wastewater treatment technologies. For organic and nutrient removal, innovative bio-processes, such as aerobic granular sludge (AGS), membrane-aerated biofilm reactors (MABRs), moving bed biofilm reactors (MBBRs), and autotrophic nitrogen removal (e.g., anammox and sulfur-autotrophic denitrification), have received great attention. Separation-based technologies including Membrane Bio-reactors (MBRs) have also been widely applied in wastewater purification. Moreover, efficient removal for trace-level emerging pollutants (such as microplastics and PFAS) and the control for direct carbon emission (CH4 and N2O) have become major concerns for future wastewater treatment plants. These aspects are subjects of interest in this Special Issue, titled 'Sustainable Biological Removal and Separation Processes in Wastewater Treatment'.

Guest Editors

Prof. Dr. Xin Zhou

College of Environment and Ecology, Taiyuan University of Technology, Taiyuan 030024, China

Prof. Dr. Shouqing Ni

School of Environmental Science and Engineering, Shandong University, Qingdao 266237, China

Prof. Dr. Guoqiang Liu

School of Environment, Jinan University, Guangzhou, China

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

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Editor-in-Chief

Prof. Dr. Frank L. Dorman
Department of Chemistry, Dartmouth College, Hanover, NH 03755, USA

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