Special Issue

Novel Functional Separation Materials for Water Treatment

Message from the Guest Editors

This Special Issue aims to explore the latest advancements in the development and application of innovative materials and cutting-edge technologies for water purification and wastewater treatment. Due to water scarcity and pollution, there is an urgent need for efficient, sustainable, and cost-effective solutions that address these challenges. This Special Issue will focus on the design, synthesis, and application of advanced materials such as nanomaterials, membranes, and bio-based adsorbents, as well as emerging technologies such as advanced oxidation processes, electrochemical treatment, and hybrid systems. We welcome contributions that highlight novel approaches to the removal of contaminants, including heavy metals, organic pollutants, and microplastics, but also aim to address resource recovery and energy efficiency. Both experimental and theoretical studies are welcome, including case studies and reviews that provide insights into the scalability and environmental impact of these technologies. This Special Issue seeks to foster interdisciplinary collaboration and contribute to the development of sustainable water treatment solutions for a cleaner and healthier future.

Guest Editors

Dr. Zhujian Huang

College of Natural Resources and Environment, South China Agricultural University, Guangzhou 510642, China

Prof. Dr. Xinjiang Hu

College of Environmental Science and Engineering, Central South University of Forestry and Technology, Changsha 410004, China

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

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Separations offers the scientific community a high-quality, open-access journal option with rapid time-to-publication without any sacrifice of a rigorous peer-review process. We invite contributions ranging from fundamental characterization and instrumentation development through application of techniques to shed light on a broad spectrum of separation science needs. Since inception, *Separations*, has become unique in its combination of rapid publication and thorough scientific content. We invite you to consider us for your next contribution.

Editor-in-Chief

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

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