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Advanced Catalytic Processes for Wastewater Treatment

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Message from the Guest Editors

Dear Colleagues,

Advanced catalytic processes play a crucial role in wastewater treatment by facilitating the removal of various contaminants and pollutants. These processes utilize catalysts to accelerate chemical reactions, leading to the degradation or transformation of harmful substances into less harmful or non-toxic compounds.

This Special Issue welcomes the submission of advanced catalytic wastewater management and treatment, including, but not limited to, the following areas:

- Advanced oxidation processes (AOPs): AOPs involve the generation of highly reactive hydroxyl radicals (•OH) to oxidize organic pollutants present in wastewater;
- Biological catalysis: biological processes employ enzymes or microorganisms as catalysts to degrade organic pollutants in wastewater;
- Catalytic reduction: catalytic reduction involves the use of catalysts to promote reduction reactions that convert toxic pollutants into less harmful forms;
- Adsorption processes: although not strictly catalytic, adsorption processes are often used in combination with catalytic methods for wastewater treatment.