# **Special Issue**

# Novel and Advanced Wastewater Treatment Technologies

## Message from the Guest Editors

Novel and advanced wastewater treatment technologies are revolutionizing the way we manage wastewater. These innovations use cutting-edge science and engineering to remove pollutants more effectively and efficiently while also recovering water, an invaluable resource. Some of the most promising technologies include: Membrane bioreactors (MBRs), which use membranes to filter out pollutants, resulting in cleaner effluent:

- Advanced oxidation processes (AOPs), which use strong oxidizing agents to break down recalcitrant and forever chemicals into harmless molecules;
- Electrochemical treatment, which uses electricity to remove pollutants;
- Emerging chemical treatment, which is are needed to treat recalcitrant and forever chemicals economically and efficiently;
- Resource recovery, which involves extracting valuable nutrients and energy from wastewater, reducing the need for fresh water and energy;
- Decentralized treatment systems, which can be used in remote areas or in small communities;
- Real-time monitoring and AI, which can be used to optimize wastewater treatment systems and reduce operational costs.

We look forward to receiving your contributions.

#### **Guest Editors**

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## Deadline for manuscript submissions

closed (8 July 2024)



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# Editor-in-Chief

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