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Advanced Oxidation Processes for Emerging Contaminant Removal

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Message from the Guest Editors

Dear Colleagues,

Cost-effective removal of various emerging contaminants in water matrices is a major challenge in water and wastewater treatment. In this regard, advanced oxidation processes (AOPs) have been considered a promising option because the highly reactive radicals such as hydroxyl, sulfate, chlorine, and nitrogen radicals generated in AOPs can effectively oxidize a broad range of emerging contaminants. Nevertheless, the practical application of AOPs is challenged by the high energy demand, formation of harmful oxidation byproducts, difficulty in scaling-up, etc. Both novel mechanistic understanding and improved engineering design are needed to overcome the challenges and create effective transfer of academic research output and practical applications of AOPs. This special issue will focus on studies on the mechanistic understanding, development, and implementation of AOPs for the removal of emerging contaminants in water and wastewater treatment, including ozone-, UV-, H₂O₂-, persulfate-based AOPs, electricity-driven AOPs, and photocatalytic AOPs. Research articles, reviews, and short communications on relevant topics are welcomed.



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Special Issue



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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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