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Advanced Oxidation Technologies for Water and Wastewater Treatment from Organic Pollutants by Nanostructure Materials

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Deadline for manuscript submissions:

closed (31 October 2023)

Message from the Guest Editors

Water resources are coming under increasing pressure due to population growth, over-use and wastage. AOPs are particularly attractive as a method for removing organic pollutants from water using nanostructure materials because they utilize hydroxyl radicals as a major oxidizing agent. Therefore, they can destroy hazardous contaminants, not simply transfer them to another phase, as do air stripping and granular activated carbon adsorption. The nanostructure semiconductor materials can degrade most kinds of persistent organic pollutants, such as detergents, dyes, pesticides and pharmaceutical drugs, under light illumination. Semiconductors can act as sensitizers for light-induced redox processes due to the electronic structure of the metal atoms. The aim of the Special Issue “Advanced Oxidation Technologies for Water and Wastewater Treatment from Organic Pollutants by Nanostructure Materials: Latest Advances, Challenges, and Prospects” is to serve scientists through the Latest Advances, Challenges, and Prospects in solving environmental problems.



mdpi.com/si/166721

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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Journal Rank: JCR - Q2 (*Water Resources*) / CiteScore - Q1 (*Water Science and Technology*)

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