

Special Issue

Modified 2-D Materials for Removal of Pollutants from Waters and Wastewaters

Message from the Guest Editors

Today, an escalating increase in the contamination of water resources with toxic inorganic and organic pollutants poses serious challenges and risks to aquatic life and human health. In recent decades, many global health concerns have been declared regarding the significant toxicity of some inorganic and organic pollutants soluble in water media, as well as the lack of appropriate methods for their effective removal from ordinary treatment plants in waters and wastewaters. To combat the crisis, researchers have introduced several technologies for the removal of toxic inorganic and organic contaminations from waters and wastewaters, including membrane separation, adsorption, photodegradation, electrochemical degradation, advanced oxidation processes, etc. A literature survey reveals that two-dimensional materials, such as graphene-based 2D materials, graphitic C₃N₄-based materials, transition metal oxides (TMOs), several metal organic frameworks (MOFs), some covalent organic frameworks (COFs), transition metal dichalcogenides (TMDs), layered double hydroxides (LDHs), silicate clays, MXenes, etc., are suitable for use in the aforementioned technologies.

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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.

Editor-in-Chief

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