



Application and Behavior of Nanomaterials in Water Treatment

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Message from the Guest Editors

Water is one of the most important resources for human existence. However, the contamination of water resources appears to be a severe threat, and these contaminations disturb or threaten aquatic ecosystems and biodiversity. They also tend to be carcinogenic and, therefore, are health hazards.

The recent development of nanotechnologies is an important emerging field in water remediation. The last few decades have shown the development of multiple applications involving nanomaterials and, more particularly, metal nanoparticles that are now applied for the decontamination of water. Multiple technologies based on graphene-based nanocomposites, functionalized magnetic nanomaterials, layered double hydroxides, and nanophotocatalysts, have been investigated for the same purpose. Challenges such as the removal of radionuclides, heavy metal cations and metalloids, and other organic species, can be met using nanomaterials.

This Special Issue will compile recent developments in nanomaterials in the field of water treatment. The topics are open to nanomaterials both organic and inorganic that are used in applications related to water remediation.





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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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