

Special Issue

The Development of Nanomaterials in Adsorption, Separation and Purification

Message from the Guest Editor

In the past decade, nanomaterials have emerged as a suitable option for tackling the global issue of water pollution and treatment. The capacity of nanomaterials to act as nanoadsorbents for water purification is based on their unique physical and chemical properties, such as high specific surface area, high porosity and active surface, and their tunable functionalities. To date, a large number of nanomaterials have been developed and proven their high capability to adsorb pollutants (dyes, heavy metals, antibiotics, pesticides, etc.) from contaminated waters. The most investigated ones are zeolites, mesoporous silicas, metal oxide nanoparticles, and carbon-based nanomaterials such as carbon nanotubes and graphene oxide. This Special Issue of *Nanomaterials* aims to cover the most recent developments in all aspects related to the synthesis and characterization of nanostructured materials for applications in adsorption, separation, and purification processes for water treatment.

Guest Editor

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Deadline for manuscript submissions

closed (19 February 2024)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/123899

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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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