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Control of New Pollutants by Functional Nanomaterials and Their Ecological Risk Assessment

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Deadline for manuscript
submissions:

20 January 2025

Message from the Guest Editor

With the rapid development of nanotechnology, nanomaterials offer numerous unique properties and functionalities that enable them to effectively remove and mitigate various types of pollutants. These materials can be tailored to target specific new pollutants, such as persistent organic pollutants, endocrine disrupters, antibiotics, and even microplastics. Their small size and high reactivity also make them suitable for real-time monitoring and the analysis of pollutants in the environment.

However, the ecological risk assessment of nanomaterials is of utmost importance. Despite their potential benefits, these materials may also introduce unintended ecological risks due to their unique physicochemical properties. Potential risks include the toxic effects of nanomaterials on aquatic organisms and terrestrial organisms, bioaccumulation in food webs, and the potential transport of nanomaterials through different environmental compartments.

This Special Issue seeks submissions that address the control of new pollutants released by functional nanomaterials and the ecological risk assessment of the latter. In this Special Issue, original research articles and reviews are welcome.



mdpi.com/si/191887

Special Issue



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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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