Special Issue

Nanomaterials in Environmental Remediation: Innovative Applications and Solutions

Message from the Guest Editors

Nanomaterials have advanced the environmental remediation field by providing cutting-edge solutions for pollution control and ecosystem restoration. Their unique properties—such as high surface area, reactivity, and tunable surface chemistry—make them highly effective for removing various contaminants from polluted air, water, and soil. This Special Issue highlights the latest advancements in nanomaterial-based remediation strategies, including metal and metal oxide nanoparticles, carbon-based nanomaterials, nanobioceramics, polymers, polymeric nanocomposites, etc. This Special Issue welcomes contributions on the applications of these nanomaterials, such as adsorption, photocatalysis, chemical degradation, and nanofiltration membranes, to highlight their effectiveness in removing heavy metals, organic pollutants, and microbial contaminants from contaminated air, water, and soil. Despite nanomaterials' potential, challenges remain regarding their environmental safety and large-scale implementation. This Special Issue addresses concerns about nanotoxicity, long-term environmental impact, and the need for cost-effective, sustainable alternatives.

Guest Editors

Dr. Daniela Predoi

Prof. Dr. Carmen Cîmpeanu

Dr. Carmen Steluta Ciobanu

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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