Special Issue

New Trends in Porous Nanomaterials and Green Environment Applications

Message from the Guest Editors

This Special Issue will focus specifically on the following types of advanced applications: (i) Water treatment: Porous nanomaterials are used for removing pollutants like heavy metals, organic contaminants, and micro plastics from water. Recent research has focused on developing materials with high selectivity and efficiency for specific pollutants). (ii) Air purification: Porous nanomaterials can adsorb and degrade harmful gases and volatile organic compounds (VOCs) from the air. This is particularly important for indoor air quality and mitigating air pollution. (iii) Energy storage and conversion: Porous nanomaterials are used in batteries, super capacitors, and fuel cells to enhance energy storage capacity and efficiency. Research is ongoing to develop materials with a high surface area and conductivity for these applications. (iv) Catalysis: Porous nanomaterials can act as catalysts for various environmental reactions, such as the degradation of pollutants, the conversion of greenhouse gases, and the production of clean fuels. We look forward to receiving your valuable contributions and advancing this crucial field of study together.

Guest Editors

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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.

Editor-in-Chief

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