

Special Issue

Synthesis and Application of Nanomaterials for Bio-Based and Environmental Pollution Molecules Detection and Purification

Message from the Guest Editors

Addressing environmental challenges requires a diverse range of tools and strategies, as issues such as pollution, habitat destruction, and contamination of water, soil, and food can seem overwhelming. However, advances in nanomaterials offer promising solutions. Recent advances in nanomaterial applications for environmental remediation include enhanced nanomaterial-based biosensors for rapid detection; preparation of nanocomposites for improved adsorption and photocatalysis; and green synthesis methods for eco-friendly nanoparticles; nanomaterials to remove microplastics and nanoplastics from water, and for air pollution remediation; metal oxides to remove specific pollutants; photocatalytic nanomaterials to use light energy to degrade pollutants; nanostructured membranes and carbon-based nanomaterials are being used to control air pollution. The goal of this Special Issue is to enhance this type of scientific contribution, playing an important role in the development of techniques to detect, capture, and remove biological and environmentally polluting materials.

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Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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