Special Issue

Advanced Nanomaterials and Nanotechnology for Pollutant Detection and Removal

Message from the Guest Editor

Accurate detection and effective removal of environmental pollutants are particularly important for mitigating or eliminating the associated environmental risks and hazards. Nanomaterials, owing to their high specific surface area, abundant active sites, and tunable physicochemical properties, exhibit great potential for achieving highly sensitive detection and efficient removal of pollutants from the environment.

This Special Issue is dedicated to recent progress in nanomaterial-based environmental technologies, such as nanosensing and detection technologies, adsorption and separation techniques using nanomaterials, and degradation technologies based on nanocatalysts.

Topics of interest for publication include, but are not limited to, the following:

Optical sensing based on metallic nanomaterials, quantum dots, and other nanomaterials;
Adsorption and separation techniques using carbon nanotubes, graphene, graphene oxides and its derivatives, and metallic nanomaterials;
Photocatalysis using semiconductor nanomaterials such as TiO2, g-C3N4, etc.;
Advanced oxidation/reduction processes using Fe-based nanomaterials, carbon-based nanomaterials, etc.

Guest Editor

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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