Special Issue

Nano-Based Materials for Soil Health

Message from the Guest Editors

Among other fields, engineered nanoparticles can be used for environmental management, through the prevention or treatment and remediation of contaminated sites, or in improving soil fertility. Additionally, the combined use of nanotechnologies and biotechnologies for soil remediation is an emerging and environmentally friendly method with significant scientific and economic potential. Engineered nanoparticles can thus become promising materials for the gentle remediation of contaminated soils and for improving soil fertility. The regulatory framework generally assumes that engineered nanoparticles possess toxicity and risk equivalent to those materials with larger particles, but the smaller size of engineered nanoparticles results in entirely different physical-chemical and toxicological properties. This Special Issue aims to cover all potential aspects related to the use of engineered nanoparticles for improving soil properties, fertility, and for remediation, including an assessment of potential ecotoxicologal risks.

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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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