

Special Issue

Advanced Characterization Techniques for Nanomaterials

Message from the Guest Editor

Adequate characterization of nanomaterials is essential to verify the identity and properties of the material, to ensure that related studies have used the same material and to facilitate the detection and characterization of the material in a complex environment. However, advanced methods that utilize multiple detection and quantification methods on a single platform, greatly increasing the information content, and methods that are compatible with the detection and quantification of nanomaterials in the complex environments provided by biological or environmental samples are increasingly needed. This Special Issue aims to provide an overview of recent developments in advanced characterization methods for nanomaterials with a focus on methods that combine multiple detection modes on a single platform, methods that are compatible with measurements in complex environments, and in operando methods. Research areas may include (but are not limited to) the following: multimodal microscopy/spectroscopy methods, single particle methods, methods for measuring number-based concentrations of nanoparticles, characterization in complex matrices, in situ/in operando methods.

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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