



Characterization of Nanomaterials by Synchrotron Radiation Techniques

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Message from the Guest Editor

Dear Colleagues,

In recent years, nanomaterials have greatly advanced because of their tremendous potential in many research fields. Synchrotron radiation X-ray characterizations have shown high potential in exploring the causal relationship between the properties and structure of nanomaterials. More specifically, operando synchrotron X-ray measurements could provide useful insight in order to better understand the dynamic process of nanomaterials. Benefiting from the high-brilliance X-ray photons and the broad spectrum of the SR light source, numerous measurement methods were developed to study nanomaterials in various fields, including synchrotron X-ray absorption fine structure spectroscopy (XAFS), synchrotron X-ray diffraction (SXRD), synchrotron X-ray photoelectron spectroscopy (SXPS), and so on. This publication aims to present the advanced SR-based technologies applied to nanomaterials, possible directions for their development, and ways of adapting them to practical applications. In this Special Issue, original research articles and reviews are welcome.

We look forward to receiving your contributions.





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Editor-in-Chief

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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.

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