Special Issue

Advanced Laser Manufacturing: Preparation of Functional Nanostructures and Synthesis of Nanomaterials

Message from the Guest Editors

In recent years, significant advancements have been made in the field of advanced laser manufacturing, particularly concerning the preparation of functional nanostructures and the synthesis of nanomaterials. This Special Issue aims to summarize the latest research findings and methods in the realm of laser-promoted nanoscale material manufacturing. We seek to provide a platform to share advanced laser nano-processing technologies and the impact of materials at the nanoscale in material preparation, molding, and synthesis processes. Key areas of focus include, but are not limited to, laser super-resolution etching, novel methods for the laser manufacturing of nanostructures, the synthesis of laser nanomaterials, surface modification, and new functional applications of nanostructures. We encourage researchers to submit original research, comments, and brief exchanges that provide new insights into the interaction between lasers and materials, nanoscale laser processing, and the development of new laser preparation technologies for nanomaterials.

Guest Editors

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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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