Special Issue

Laser Processing of Nanomaterials

Message from the Guest Editors

Laser material processing technologies have gained considerable importance in diverse industries due to the rapid growth of laser applications and the reduced cost of laser systems. Among the applications of laser technology, in recent years, 3D printing and laser cladding have received significant attention in diverse industries; 3D printing can manufacture parts directly from a digital model using a layer-by-layer material build-up approach. This manufacturing method can prepare complex-shape metal parts in a short time, with high precision. Laser cladding is widely used in the preparation of composite coating; the method has some excellent characteristics, such as metallurgical bonding with the substrate, controllable coating thickness, and high processing efficiency, and is suitable for use with various metal materials. In this Special Issue, we welcome articles that focus on metal 3D printing and laser cladding materials, in addition to processes and their influences on the final products' microstructures and performances, in order to provide guidance for the development of metal 3D printing and laser cladding technologies.

Guest Editors

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Deadline for manuscript submissions

closed (31 July 2023)



Nanomaterials

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Impact Factor 4.3 CiteScore 9.2 Indexed in PubMed



mdpi.com/si/152288

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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 nanometerscale 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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