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Magnetron Sputtering-Obtained Nanomaterials: From Synthesis to Electronic and Optoelectronic Applications

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Message from the Guest Editors

Dear Colleagues,

Magnetron sputtering has emerged as a versatile technique for fabrication of nanomaterials and thin films with controlled properties. This Special Issue aims to highlight cutting-edge research on magnetron sputtering-obtained nanomaterials and applications in developing electronic and optoelectronic devices.

This Special Issue includes the following topics:

Magnetron sputtering technique and process optimization;
Synthesis and characterization of nanomaterials and thin films;
Structural, optical, and electronic properties of sputtered nanomaterials;
Memory devices, Sensors and detectors;
Energy harvesting and storage devices, Spintronic and memristive devices;
2D materials obtained by magnetron sputtering;
Modeling and simulation of magnetron sputtering processes and resulting nanostructures, including cellular automata approaches;
Machine learning applications in material discovery and magnetron sputtering process optimization;
Combinatorial thin-film libraries for rapid material exploration.

See more information in: <https://www.mdpi.com/si/213909>

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Special Issue



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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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