Special Issue

Nanostructured Thin Films: Properties, Fabrication and Application

Message from the Guest Editors

This Special Issue's potential topics include, but are not limited to, the following:

- Advanced deposition techniques for nanostructured thin films, including atomic layer deposition, chemical vapor deposition, and physical vapor deposition;
- Optical and electronic properties of nanostructured thin films for photonic and optoelectronic devices;
- Applications of nanostructured thin films in energy systems, including photovoltaics, batteries, and supercapacitors;
- Integration of nanostructured thin films in wearable and flexible electronics;
- Development of nanostructured thin films for sensor applications in healthcare and environmental monitoring;
- Fabrication of multifunctional nanostructured coatings for corrosion resistance and mechanical reinforcement;
- Nanostructured thin films for enhanced catalysis and chemical reactions:
- Biocompatible and antimicrobial thin films for medical implants and devices;
- Theoretical modeling and simulation of nanostructured thin film growth and properties;
- Scalability and sustainability challenges in the industrial production of nanostructured thin films.

Guest Editors

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Deadline for manuscript submissions

closed (19 September 2025)



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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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