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Nanostructured Surfaces and Thin Films for Advanced Wetting Applications

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Deadline for manuscript submissions: closed (31 August 2021)

Message from the Guest Editor

Bioinspired surfaces are being developed in laboratory settings to translate to industrial large-area advanced wetting applications in liquid transport, microfluidics, sensors. self-cleaning, anti-fouling, antifogging or icephobic surfaces. Nanostructured surfaces and lubricant thin films have demonstrated a promising potential for the fabrication of smart devices taking advantage of the special wetting behavior. Fundamental properties such as chemical composition, topography, nanostructure, surface energy and zeta potential are critical for the understanding and control of the phase-surface interaction at the nanoscale material interface, being as phase polar liquids, non-polar liquids, organic compounds or ice.

This Special Issue aims to include a broad range of topics: from coatings and nanostructures fabrication to the functionality demonstration going through the advanced wetting characterization under new protocols hardly implemented at the laboratory level controlling the environment.









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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, metalorganic 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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