



Nanomaterials Engineering through Surface Functionalization

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Message from the Guest Editor

This Special Issue of *Nanomaterials* will cover the most recent advances from experimental and theoretical studies in functionalization strategies for nanostructured platforms. The demand of engineered nanostructures has increased in the recent years, boosted by, e.g., the need for novel concepts in energy harvesting and storage, in sensing for diffuse environmental monitoring and health screening, as well as by the increasing impact of the IoT, demanding portability and self-powering. One way to engineer nanostructured materials is through functionalization, which can be achieved in different ways once a nanostructured platform has been created. Among these methods, the most popular rely on the addition of nanoparticles, nanorods, nanosheets of metals, metal oxides, semiconductors, and carbon-based nanomaterials. Another promising functionalization method is represented by the growth of ultrathin layers, including molecular layers, on nanostructured platforms leading to the formation of heterojunctions.





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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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