Special Issue

Functionalized Nanostructures on Surfaces and at Interfaces

Message from the Guest Editors

The visualization of functionalized nanostructures and the determination of their physicochemical properties is essential for understanding their structure-activity relationship and for the development of materials in multiple applications. Surface science enables the preparation of nanostructures on surfaces and at interfaces via non-covalent and covalent intermolecular interactions, providing model systems for exploring intermolecular interactions, and physicochemical properties. In addition, the underlying substrates not only serve as well-defined platforms and templates for holding and aligning the target nanostructures, but are also applied as catalysts to facilitate the construction of such nanostructures. The present Special Issue of Nanomaterials aims to present current state-of-the-art experimental and theoretical investigations on functionalized nanostructures on surfaces and at interfaces, including, but not limited to, structures and properties of functionalized nanostructures, novel surface and interface physicochemical phenomena, processes and mechanisms involved in the preparation of these nanostructures, and theoretical predictions.

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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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