Special Issue

Confinement Effect on the Stability of Different Molecular Species inside Nanostructures

Message from the Guest Editor

Due to the fantastic evolution of experimental tools at the nanoscale, the unique properties of nanostructures, such as surface to volume ratio, transport properties, and confinement effects, have been extensively exploited for developing new kinds of fundamental applications, leading to the emergence of new scientific domains, such as nanomedicine or nanofluidics. Indeed, the confinement of atoms or molecules in a nanostructure is a very promising way to obtain a specific area where chemical reactions can be controlled or to transport safely drug molecules. Moreover, this nanoconfinement was at the origin of the development of new scientific domains, such as nanocatalysis, nanodetection, or nanofluidics. In these latter cases, efforts are still underway to understand and discover all the properties of these domains, which are still unresolved. This Special Issue aims to highlight recent advances in confinement effect on the stability of molecules inside nanostructures for the development of new applications. Therefore, we invite researchers to submit their original papers describing new findings in the field of confined materials.

Guest Editor

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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.

Editor-in-Chief

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