

Special Issue

Theoretical and Computational Study and Modelling on Novel Nanostructures

Message from the Guest Editors

The improved requirements in manufacturing nanotechnology have favoured the development of enhanced nanostructures with high mechanical properties, permeability, and electrical conductivity primarily made of carbon-based materials, as carbon nanotubes (CNTs), graphene sheets, or nanoplatelets. The complicated nature of these structural systems requires a proper investigation of their fundamental properties on a small scale, especially from a theoretical and computational standpoint. Advanced theories and high-performance computational models for the statics or dynamics of nano-systems are welcomed, as well as those concerning the development of enhanced non-local damage and fracturing problems which are able to capture the formation and propagation of the internal cracks related to the heterogeneity of complex materials and interfaces.

Guest Editors

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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