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Nanomechanics: From Theory to Application

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Message from the Guest Editors

Dear Colleagues,

Nanomechanics is an area of nanoscience that studies fundamental mechanical properties of physical systems at the nanoscale. Nanomechanics has developed at the intersection of classical mechanics, statistical mechanics, and quantum chemistry, and the overlapping of solid-state physics, biophysics, and materials science.

In nature, all key steps involve mechanical movement at the molecular level, and, moreover, the macroscopic properties of polymeric materials are closely related to the molecular composition, structure, conformation, and interactions at this level.

This Special Issue of *Nanomaterials*, entitled “Nanomechanics: From Theory to Application”, will cover the aforementioned advances, comprising both theoretical and experimental findings in different areas from nanostructures and materials to biological entities.

Dr. Marina Inés Giannotti
Dr. Lorena Redondo-Morata
Guest Editors



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Special Issue



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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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