Special Issue

Nanomechanics, Plasticity and Fracture

Message from the Guest Editors

Different nanomaterials and nanostructures are currently being investigated through experiments or atomistic simulations, such as low-dimensional nanostructures, nanocomposites, nanofibers, biomaterials, and other nanostructures. The mechanical properties or behaviors of nanomaterials are not only attracting extensive efforts under ambient conditions but also at extreme conditions, such as high temperature or pressure. Currently, there is also great interest in the study of the physical or chemical properties of advanced nanomaterials under mechanical strain, which is emerging as a fascinating and challenging avenue to enable nanomaterials with unique properties.

This Special Issue of Nanomaterials will attempt to cover the most recent advances in "Nanomechanics, Plasticity and Fracture", concerning not only the mechanical properties, behaviors, and deformation mechanisms of materials down to the nanoscale but also their novel physical or chemical phenomena or responses, as triggered by mechanical strain.

You can see more details at the follwoing link:
https://www.mdpi.com/si/145736

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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 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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