Special Issue

Dynamics and Mechanics in Two-Dimensional Nanostructures: Simulation and Computation

Message from the Guest Editors

In recent years, scientists and engineers from different fields have drawn particular attention to the exploration of the mechanical and dynamic properties of 2D materials and devices. In practical application, the dynamics and mechanics of 2D materials have a significant impact on the performance of related devices, including thermoelectrics, rechargeable batteries, optoelectronic devices, and field-effect transistors. This Special Issue aims to summarize the present state of the art in this field, to inspire the research interests and trends, and to shed light on novel applications in the future. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following: mechanical properties of two-dimensional materials; dynamics of two-dimensional materials: lattice dynamics; thermal conduction; and theory and simulation..... For detailed information, please see the webpage:

https://www.mdpi.com/journal/nanomaterials/special_is sues/dynamics_mechanics_2d

Guest Editors Prof. Dr. Gang Zhang

Dr. Kai Ren

Dr. Bin Ding

Deadline for manuscript submissions

closed (28 November 2022)



Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3 CiteScore 9.2 Indexed in PubMed



mdpi.com/si/98149

Nanomaterials Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 nanomaterials@mdpi.com

mdpi.com/journal/ nanomaterials





Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3 CiteScore 9.2 Indexed in PubMed



nanomaterials



About the Journal

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 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

Prof. Dr. Eugenia Valsami-Jones School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)