

Special Issue

Structural Self-Organization of Light Atoms-Based Materials under Extreme Conditions including Large Shear Deformation

Message from the Guest Editor

Advanced materials based on C, C-N, B-C, B-N and other light atoms, and areas of their applications are known for several decades. Unique transport (including superconductivity), mechanical (including ultrahardness) and optical properties have been discovered or predicted for these materials. Under non-equilibrium conditions, combinations of light atoms are organized in known nanoclusters (fullerenes, nanotubes, onions, cones, etc.). Do the nanoclusters belong to the appropriate phase diagrams? This Special Issue of *Nanomaterials* is not restricted by the fundamental problem of the nanocluster phase existence in the phase diagram. The main target is properties and applications of light atoms-based nanomaterials. Structural self-organization under extreme conditions, including large shear deformation, is just the unique tool that can ensure the discovery of new advanced materials.

Guest Editor

Prof. Dr. Mikhail Popov
Technological Institute for Superhard and Novel Carbon Materials,
Troitsk, Moscow, Russia

Deadline for manuscript submissions

closed (31 January 2022)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/69300

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

[mdpi.com/journal/
nanomaterials](https://mdpi.com/journal/nanomaterials)





Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



[mdpi.com/journal/
nanomaterials](https://mdpi.com/journal/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 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.

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, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

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