



an Open Access Journal by MDPI

## Fabrication, Characterization and Application of High-Energy Material (Volume II)

Guest Editor:

**Prof. Dr. Aleksander B. Vorozhtsov**

Faculty of Physics and  
Engineering, National Research  
Tomsk State University, 634050  
Tomsk, Russia

Deadline for manuscript  
submissions:

**closed (20 May 2024)**

### Message from the Guest Editor

High-energy materials are very compact stores and carriers, primarily used in the space rocket industry and weaponry. The Special Issue's coverage of high-energy materials will include their synthesis, preparation and characterization, investigation analysis, testing and evaluation.

The applications of high-energy materials make it possible to use them not only as fuel for the generation of new space rockets, but also in blasting works for the construction and mining industry, in geophysical surveying, as gas generators for enhanced oil recovery, in solid-propellant magnetohydrodynamic (MHD) systems, and EM generators for the conversion of chemical energy into electromagnetic energy, producing the most powerful sources of light energy in a wide range of frequencies (wavelengths) via pulsed laser and X-ray emitters and high-frequency emitters (SHF). They can also be used in gas generators for emergency systems, pressurized fire-extinguishing systems, pressurization systems, pressurized lifting bags for lifting heavy objects underwater, car safety airbags, shock-wave compaction, and in material science (e.g., the production of super-hard materials and composites).



[mdpi.com/si/146373](https://mdpi.com/si/146373)

# Special Issue



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

## Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

## 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, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

**Journal Rank:** JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

## Contact Us

*Materials* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)