



## Growth and Characterization of Bulk Crystals

Guest Editor:

**Prof. Dr. Daniel Vizman**

Department of Physics, West  
University of Timisoara, Bd.V  
Parvan 4, 300223 Timisoara,  
Romania

Deadline for manuscript  
submissions:

**closed (25 January 2022)**

### Message from the Guest Editor

Electronic and optical devices are almost all based on single crystals of semiconductors and oxides. We can see that progress in crystal growth techniques makes tremendous developments in the field of microelectronics, power electronics, photovoltaics, optoelectronics and scintillator materials.

In order to fulfill the industry requirements, researchers are expected to give insights into crystal growth mechanisms in order to understand crystalline perfection. On one side, characterization methods like X-ray and electron diffraction, optical spectroscopy, mass spectroscopy, and electric and magnetic measurements provide this insight, and they have become important tools in the study of bulk crystal growth and materials properties. On the other side, in recent decades, computer modeling has become an essential tool for optimization of growth design and automation process.

We kindly invite you to submit a manuscript(s) for this Special Issue. Full papers, communications, and reviews in the field of bulk crystal growth—growth techniques, characterization, and computer models—are all welcome.





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 & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

## Contact Us

Materials Editorial Office  
MDPI, St. Alban-Anlage 66  
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)