

## Special Issue

# Novel High-Temperature Materials: Preparation, Characterization, and Applications

### Message from the Guest Editor

The Special Issue on “Novel High-Temperature Materials: Preparation, Characterization, and Applications” brings together scientists to discuss advanced research on these group of materials. High-temperature materials are ceramics, metals, their alloys, and composites which offer excellent chemical, phase, and property stability, at temperatures exceeding 900 °C. More specifically, these are the materials which could be used at such high temperatures and consist principally of some stainless steels, Ni-base alloys, single-crystal super alloys, refractory metals (tungsten, rhenium, osmium, tantalum, molybdenum, niobium, zirconium, iridium), their alloys, and a wide group of ceramic materials. These materials are used as materials of thermal protection systems (TPS), coatings for materials exposed to high temperatures, and bulk materials for heating elements or isolators. Therefore, this Special Issue welcomes contributions from all researchers working on high-temperature materials obtaining, as well as on their modeling, synthesis, characterization, properties, and applications.

---

### Guest Editor

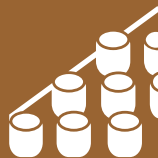
Prof. Dr. Lucyna Jaworska

Faculty of Metal Engineering and Industrial Computer Science, AGH University of Krakow, Mickiewicza 30 Avenue, 30-059 Krakow, Poland

---

### Deadline for manuscript submissions

closed (10 November 2022)



## Materials

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.1  
CiteScore 5.8  
Indexed in PubMed



[mdpi.com/si/46907](https://mdpi.com/si/46907)

*Materials*

MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[materials@mdpi.com](mailto:materials@mdpi.com)

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





# Materials

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.1  
CiteScore 5.8  
Indexed in PubMed



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



## About the Journal

### 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.

---

### 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

---

### 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 - Q1 (Metallurgy and Metallurgical Engineering) /  
CiteScore - Q2 (Condensed Matter Physics)