



an Open Access Journal by MDPI

## Development and Application of High-Temperature Ceramics

Guest Editors:

### Dr. Yong Deng

School of Civil Aviation,  
Northwestern Polytechnical  
University, Xi'an, China

### Dr. Ruzhuan Wang

School of Metallurgy and  
Materials Engineering, Chongqing  
University of Science &  
Technology, Chongqing, China

Deadline for manuscript  
submissions:

**closed (10 June 2023)**

### Message from the Guest Editors

Due to the more severe service environment that high-temperature ceramics are subjected to, higher requirements are put forward for their performance. Thus, some new analytical models, as well as preparation, characterization and test methods for high-temperature ceramics have been proposed. We are delighted to invite contributions to this Special Issue on “Development and Application of High-Temperature Ceramics”. In the collection, we hope to underline recent advances related to processing, microstructures, property characterization and optimization, and damage failure mechanism analyses for high-temperature ceramics. Consequently, research topics of interest may include, but are not limited to: processing; strengthening and toughening; property characterization; theoretical modeling; and damage failure mechanism analysis. Manuscripts in the form of full research papers, communications and review articles are all encouraged.

- high-temperature ceramics
- strengthening and toughening
- mechanical properties
- high-temperature applications
- service performance
- damage failure mechanism analysis
- ceramic matrix composites



[mdpi.com/si/120980](https://mdpi.com/si/120980)

# Special Issue



an Open Access Journal by MDPI

## Editors-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

### Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

## Message from the Editorial Board

*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)