

## Special Issue

# High Temperature Ceramic Materials

### Message from the Guest Editor

This Special Issue is aimed to cover the recent research work on high temperature ceramic materials. Topics can include, but are not limited to, the following:

- Novel synthesis of high melting ceramic particles/nanofibres
- New binders/bonding systems
- Novel shape forming techniques (e.g., Casting, additive manufacturing, directional solidification, coating preparation techniques, composite preparation techniques)
- Sintering/densification techniques and mechanisms (e.g., hot-pressing, laser processing, SPS sintering, cold sintering and flash sintering)
- Properties: mechanical, thermal and chemical properties
- Physical/chemical/microstructural characterizations
- Simulations: thermodynamic simulations, molecular dynamic simulation, Monte Carlo simulation and first-principles density functional calculation
- Applications of high temperature ceramics
- Preparation and characterization of new system high temperature ceramics

It is my great pleasure to invite colleagues to submit a manuscript for this Special Issue. Full papers, communications, and reviews on any aspect of high temperature ceramics are all welcome.

### Guest Editor

Prof. Dr. Shaowei Zhang

College of Engineering, Mathematics and Physical Sciences, University of Exeter, Exeter, UK

### Deadline for manuscript submissions

closed (30 April 2020)



## Materials

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 6.4  
Indexed in PubMed



[mdpi.com/si/14464](https://mdpi.com/si/14464)

*Materials*  
Editorial Office  
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 3.2  
CiteScore 6.4  
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 - Q2 (Metallurgy and Metallurgical Engineering) /  
CiteScore - Q1 (Condensed Matter Physics)