# Special Issue

# Advanced Ceramic and Glass Materials: Preparation, Characterization and Applications

## Message from the Guest Editor

In the field of aerospace, extreme high temperature environment brings difficulties to the design of aircraft. Advanced thermal protection system is one of the keys to ensure the safe flight of aircraft, in which lightweight thermal insulation materials are an important part of a thermal protection system. High temperature-resistant adhesives and coating are necessary auxiliary materials for assembly. This Special Issue will address the preparation, characterization and applications of advanced ceramics, composites, glasses for application in the range of 1000. Special emphasis will be placed on the mechanical properties, radiation resistance, thermal properties and structure evolution. Toughening has always been the key to improve the properties of extreme high temperature materials. The Special Issue also welcomes manuscripts on the analysis of in situ growth and strengthening mechanisms. Topics of interest include, but are not limited to, the following:

- Ceramics or glasses for extreme environmental applications;
- Fiber-reinforced ceramic-based composites;
- High-temperature resistant adhesives and coatings;
- Nano/micro phases in situ growth for reinforcement.

## Guest Editor

Dr. Mingchao Wang
College of Science, Civil Aviation University of China, Tianjin, China

## Deadline for manuscript submissions

closed (20 November 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/132382

*Materials*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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

MDPI

# 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)