



Advances in High Temperature Materials: Manufacture, Characterization and Simulation

Guest Editors:

Prof. Dr. Hua Wei

Center of Hypergravity
Experimental and
Interdisciplinary Research,
Zhejiang University, Hangzhou,
China

Dr. Ronghai Wu

School of Mechanics and Civil
Architecture, Northwestern
Polytechnical University, Xi'an
710072, China

Deadline for manuscript
submissions:

closed (20 February 2024)

Message from the Guest Editors

Dear Colleagues,

High temperature materials demonstrate a series of superior properties at high temperatures. Due to their ‘super’ performance, they have sustained wide applications in aircraft, industrial gas turbines, oil equipment, and vehicles for over seven decades. As we move through the third decade of the twenty-first century, higher requirements are put forward for the temperature-bearing capacity. These demands necessitate a Special Issue, “Advances in High Temperature Materials: Manufacture, Characterization and Simulation”, to publish recent progress upon which new developments can be built.

- high temperature materials
- refractory metals
- high temperature ceramics
- new types of superalloy
- blade alloy behavior
- disk alloy manufacture
- environmental behavior
- alternative materials
- microstructure
- dislocation structure
- modeling and simulation
- constitutive modeling





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

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)