



Evolution of the Working Performance of Special Materials during the Whole Life Cycle

Guest Editors:

Prof. Dr. Biao Ma

School of Mechanical
Engineering, Beijing Institute of
Technology, Beijing, China

Dr. Liang Yu

School of Mechanical
Engineering, Beijing Institute of
Technology, Beijing, China

Deadline for manuscript
submissions:

closed (20 September 2023)

Message from the Guest Editors

Dear Colleagues,

The main purpose of this Special Issue on “Evolution of the Working Performance of Special Materials during the Whole Life Cycle” is to find solutions to the difficulties and challenges encountered in the quantification, monitoring and evaluation of the working performance of special materials in the whole life cycle. The research field covers the reviews, principles, and methods of the overall performances of special materials, including formation and preparation processes, whole-life performance monitoring, quantification and evaluation, optimal working condition design, etc. The main contents areas of interest include but are not limited to the manufacturing and processing of composites, the quantitative characterization of micro-morphology and friction coefficient, the identification of material deformation and failure, the evaluation of noise and vibration, oil detection technology for worn materials, numerical simulation and experimental methods for the evaluation of friction-wear, dynamic response, and thermal load characteristics.

Prof. Dr. Biao Ma

Dr. Liang Yu

Guest Editors





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)