







an Open Access Journal by MDPI

Research on Interfaces and Transportation Phenomena in Materials Under Extreme Conditions

Guest Editors:

Dr. Haidong Wang

Institute of Engineering Thermophysics, Department of Engineering Mechanics, Tsinghua University, Beijing 100084, China

Dr. Run Hu

School of Energy and Power Engineering, Huazhong University of Science and Technology, Wuhan 430074, China

Deadline for manuscript submissions:

20 August 2025

Message from the Guest Editors

Dear Colleagues,

We are pleased to announce that a new Special Issue, entitled "Research on Interfaces and Transportation Phenomena in Materials under Extreme Conditions". is open to submissions. With the rapid development of nanotechnology and material science, researchers are able to observe and investigate transportation phenomena under extreme conditions, such as atomic scale, high power density, ultra-fast process, etc. Advanced atomic scale simulation methods, including molecular dynamics simulation, first-principle calculation, the Monte Carlo method, etc., enable us to thoroughly understand the physical mechanism of transportation. This Special Issue is open to submissions on new measurement techniques, simulations. and the theoretical modeling transportation phenomena under extreme conditions. among other things, providing new insights perspectives.













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 iournal covers twenty-five comprehensive biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and svstems. 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