Special Issue

Damage, Fracture, and Fatigue of Multi-Principal Element Alloys

Message from the Guest Editor

Multi-principle element alloys (MPEAs) have attracted extensive interest due to their exceptional mechanical properties and the vast compositional space for new MPEAs. Recent advances in overcoming the strengthductility synergy by deliberately deploying heterogeneous nanostructures in MPEAs have revolutionized alloy design strategies in the field of structural materials. For this Special Issue of *Materials*, we welcome exceptional innovative contributions on the damage, fracture, and fatigue of MPEAs with heterogeneous nanostructures. This Special Issue aims to present a collection of original research articles and review papers that will provide researchers across the world with an overview of the latest trends and progress in the research of MPEA mechanics.

Guest Editor

Dr. Cheng Huang College of Aerospace Engineering, Chongqing University, Chongqing, China

Deadline for manuscript submissions

20 August 2025



an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed



mdpi.com/si/210778

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

mdpi.com/journal/ materials





an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed



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)