Special Issue

New Progress on Electron Microscopies for Characterizing Microstructures

Message from the Guest Editor

Mechanical tests followed by microstructural investigations bring valuable information for understanding the mechanical performance of materials. Electron microscopy is one of the most important techniques for analyzing deformation microstructures. Two kinds of electron microscopes bring complementary information: at the macro/mesoscopic scale, scanning electron microscopy (SEM), and at micro/nano-scale, transmission electron microscopy (TEM). Following the breakthroughs in materials science, the constant improvement of electron microscopy techniques tend to make them essential for bringing valuable information to understand the mechanical behavior of materials. This Special Issue aims to report some of the significant progress in the field of electron microscopy. Articles will cover major aspects of materials science: the development of revolutionary electron microscopy techniques, fundamental physical phenomena and of course their applications in materials science.

Guest Editor

Dr. Antoine GUITTON

Université de Lorraine –CNRS – Arts et Métiers ParisTech – LEM3, 7 rue Félix Savart, 57070 Metz, France

Deadline for manuscript submissions

closed (1 July 2020)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/21280

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)