Special Issue

Creep Behaviour and Life Assessment of Structural Materials

Message from the Guest Editors

Several processes require the increase of operating temperature to ensure higher efficiency. Elevated temperatures can speed up the processes of creep strain accumulation and activate mechanisms of damage that can cause early failure of the material. Other no less important applications are governed by stress relaxation, which is closely related to the viscous flow of the material. One of the critical issues in the creep design is the life assessment of structural materials linked to the capability to predict the creep behaviour in operation. A further limitation is the limited availability of long-term experimental data so that creep theories are often validated on short-term tests. In this context, further studies on new more performing materials as well as on advanced creep modelling can help to preserve an adequate level of structural integrity. The topic and its potential applications, although of extreme relevance, cover little space in the scientific literature. It is our pleasure to invite you to submit a manuscript for this Special Issue entitled “Creep Behaviour and Life Assessment of Structural Materials.”

Guest Editors

Dr. Luca Esposito

Department of Chemical, Materials and Production Engineering, University of Napoli Federico II, Naples, Italy

Dr. Michele Perrella

Department of Chemical, Materials and Production Engineering, University of Napoli Federico II, Napoli, Italy

Deadline for manuscript submissions

closed (20 February 2022)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/46795

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)