







an Open Access Journal by MDPI

Rejuvenation Heat Treatment of High-Temperature Advanced Alloys

Guest Editor:

Dr. Inmaculada Lopez-Galilea Institut Für Werkstoffe, Ruhr-Universität Bochum, Bochum, Germany

Deadline for manuscript submissions: closed (10 August 2023)

Message from the Guest Editor

The thermomechanical properties of high-temperature are largely allovs affected by their microstructures, which are developed by high-temperature heat treatments. Many of the applications of highadvanced temperature allovs involve combinations of stresses and high temperatures in highly corrosive and oxidizing environments that consequently degrade microstructure and, therefore, the thermomechanical properties. To avoid costly periodic component replacements, high-temperature rejuvenation heat treatments can be applied to restore the microstructures and mechanical properties of degraded advanced allovs, due to the fact that most microstructural degradations are reversible. The application of suitable rejuvenation heat treatments at high temperatures represents a benefit not only in less material waste but also in terms of time reduction and lower energy consumption.

The purpose of this Special Issue is to collect works related to rejuvenation heat treatment of high-temperature advanced alloys. It is my pleasure to invite you to submit manuscripts to this Special Issue. Full papers, communications, and reviews are all welcome.













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, OC 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 - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

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