



materials



an Open Access Journal by MDPI

Semisolid Processing and Squeeze Casting of Alloys and Composites

Guest Editors:

Prof. Dr. Jufu Jiang

School of Materials Science and Engineering, Harbin Institute of Technology, Harbin 150001, China

Prof. Dr. Gang Chen

School of Materials Science and Engineering, Harbin Institute of Technology at Weihai, Weihai, China

Deadline for manuscript submissions:

closed (20 May 2023)

Message from the Guest Editors

Semisolid processing (SSP) and squeeze casting (SC) are two typical near-net-shape technologies for forming of alloys and composites. They have been widely used in the automotive, motorcycle, aerospace, weapons, and 3C fields due to their low resistance to deformation, short processing time, and low cost.

Semisolid processing and squeeze casting depend on the optimization of microstructure and properties, numerical simulation of processes, and the development of new materials. This Special Issue aims to cover recent progress and new developments in the relationships between the microstructures and mechanical properties of products formed by SSP or SC. All aspects related to SSP or SC, semisolid slurry fabrication, rheoforming and thixoforming, physical and numerical simulation of SSP and SC, process optimization of squeeze casting, and heat treatment of products formed by SSP and SC are of interest. Submissions of full papers, communications, and reviews are all welcome.



mdpi.com/si/101028

Special Issue



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 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.

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 - Q1 (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](https://twitter.com/Materials_Mdpi)