



Advanced Stainless Steel—from Making, Shaping, Treating to Products

Guest Editors:

Dr. Chao Chen

College of Materials Science and Engineering, Taiyuan University of Technology, Taiyuan 030024, China

Dr. Wangzhong Mu

Department of Materials Science and Engineering, KTH Royal Institute of Technology, Brinellvägen 23, SE-10044 Stockholm, Sweden

Deadline for manuscript submissions:

30 September 2025

Message from the Guest Editors

Dear Colleagues,

Stainless steel has been developed for over 100 years. Steel grade can be grouped as austenitic, ferritic, martensitic, or duplex stainless steel. A number of new grades, such as lean duplex, super austenitic, and high-nitrogen stainless steel, have been developed. The production of stainless steel is still challenging work with respect to all of the processing steps, including stainless steelmaking, solidification and casting, continuous casting, heat treatment, electric slag remelting, vacuum arc remelting, hot rolling, and cold rolling. The corrosion and mechanical properties of stainless steel products are also very important. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) stainless steelmaking, solidification and casting, heat treatment, electric slag remelting, vacuum arc remelting, hot rolling, cold rolling, corrosion of stainless steel and mechanical properties of stainless steel.

We look forward to receiving your contributions.





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 - Q2 (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)