Special Issue

Advanced Forming Technologies, Mechanical Performance and Structural Properties of Metallic Materials and Alloys

Message from the Guest Editors

Advanced forming technologies have revolutionized the manufacturing industry by enabling the production of complex components with improved structural and mechanical properties. These technologies, coupled with advancements in understanding the structural properties of metallic materials and alloys, have paved the way for innovative manufacturing processes and enhanced product performance in crucial applications. Thus, understanding the mechanical performance and structural properties of metallic materials and alloys such as Ti alloys, Al alloys, Mg alloys and ultra-high-strength steels is essential for optimizing the forming processes and ensuring the reliability and functionality of the final products. Therefore, this Special Issue aims to present the latest achievements in advanced metal forming technologies coupled with an understanding of the mechanical performance and structural properties of metallic materials and alloys and the latest research related to the computational approaches for metal forming technologies. Full papers, communications, and reviews focusing on new developments in the formation of advanced metallic materials and alloys are welcome.

Guest Editors

Prof. Dr. Yong Xu

Dr. Ali Abd El-Aty

Dr. Sangyul Ha

Deadline for manuscript submissions

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

mdpi.com/journal/materials

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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

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