metals

an Open Access Journal by MDPI

IMPACT FACTOR 2.6

CITESCORE 4.9

Ultrasonic Processing of Alloys

Guest Editor:

Prof. Dr. Youngjig Kim
School of Advanced Materials Science and Engineering, Sungkyunkwan University, Jangan-gu, Suwon, 16419, Korea

Deadline for manuscript submissions:
closed (31 October 2020)

Message from the Guest Editor

Dear Colleagues,

Ultrasonic processing is a relatively new environmentally conscious technology with wide application in the commercial production of high-quality cast and worked alloys.

About 45 years ago, G.I. Eskin presented a variety of applications of ultrasound in cleaning, degassing, casting, deformation, and post-deformation processing of metals and alloys. Since then, research in high-power ultrasound propagation in liquid and solid metals has led to the understanding of some effects occurring at interfaces and contributed to the development of ultrasonic processing.

This Special Issue aims to address the latest research devoted to exploring the potentialities of ultrasonic processing in liquid alloys, solid alloys, and liquid-solid slurries. Advances in fundamental studies and the commercial prospects of this process to control the structure and properties of cast and worked metals are also welcome. Research articles focusing on the improvement of product quality, the development of integrated environmentally friendly, and cost-effective ultrasonic processes are encouraged as well.

metals

IMPACT FACTOR 2.6

CITESCORE 4.9

an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Hugo F. Lopez
Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

Prof. Dr. Yong Zhang
Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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), Inspec, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (*Metallurgy and Metallurgical Engineering*) / CiteScore - Q1 (Metals and Alloys)

Contact Us

Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/metals
metals@mdpi.com
𝕏@Metals_MDPI