Special Issue

Solid Phase Processing

Message from the Guest Editor

SPP encompasses a variety of thermomechanical processing techniques that impart extreme plastic deformation to achieve novel microstructures and improved bulk properties. Of particular interest are SPP techniques that are capable of fabricating bulk quantities of material. Examples include, but are not limited to, friction stir welding and processing, friction extrusion, cold spray, friction consolidation, equal channel angular pressing, impact welding, and accumulative roll bonding. Severe Plastic Deformation (SPD) techniques that yield extreme grain refinement are also welcome. Examples include high-pressure torsion, cyclic extrusion and compression, repetitive corrugation and straightening, and multi-forging. Research that explores any combination of the process–microstructure–property relationship in metals undergoing extreme plastic deformation is within scope for this Special Issue.

This Special Issue on Solid Phase Processing is a unique opportunity to collect research that, historically, has been dispersed across a broad of range of journals. We look forward to receiving your manuscript!

Guest Editor

Dr. Scott Whalen
Pacific Northwest National Laboratory, Richland, WA 99352, USA

Deadline for manuscript submissions

closed (30 November 2021)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/80569

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

mdpi.com/journal/metals

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/journal/metals

About the Journal

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.

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

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

MDPI