Special Issue

Mechanical Properties and Formability of FSWed Sheets

Message from the Guest Editors

In recent years, demand for lightweight materials has continuously increased in many industrial fields, such as automotive, aeronautic, and transportation, in order to reduce weight, fuel consumptions, and environmental impact. In the manufacturing of sheet metal assemblies, lightweight structures can be effectively obtained using tailor welded blanks (TWBs), fabricated by performing a friction stir welding process of two or more blanks, also in different materials and/or thicknesses, to produce a single assembly. The desired geometry can also be obtained by plastically deforming the TWBs, with an optimized thickness distribution. In this framework, for this Special Issue, we invite our colleagues to submit papers in the area of friction stir welding, focusing in particular on the mechanical properties and post-welding formability of friction stir welded joints. Review articles and short communications are also of interest for this Special Issue.

Guest Editors

Prof. Dr. Archimede Forcellese

Dipartimento di Ingegneria Industriale e Scienze Matematiche (DIISM), Università Politecnica delle Marche, Italy

Prof. Dr. Michela Simoncini

Department of Industrial Engineering and Mathematical Sciences, Università Politecnica delle Marche, Via Brecce Bianche 12, 60131 Ancona, Italy

Deadline for manuscript submissions

closed (31 October 2021)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/41845

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 Editor-in-Chief

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.

Editor-in-Chief

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