Special Issue

Explosive Welding

Message from the Guest Editor

The clads obtained by the method of explosive welding are composed of two or more different metals permanently joined with the use of energy of detonation of the explosive material. They are usually materials that cannot be joined with traditional methods of welding. Obtaining such a connection requires very careful selection of parameters of explosive welding, i.e., detonation velocity and the distance between the joined plates. Explosive welding allows one to obtain the required properties, such as corrosion resistance, increased hardness, resistance to high temperatures, suitable frictional properties, or special electrical properties. Application of explosive welding technologies allows one to reduce material costs. The aim of this Special Issue is to gather the most recent research advancements in the field of explosive welding. Static and cyclic analyses (initiation and fatigue crack growth) in metallic cladding joints are of primary interest. The submitted works will show how microstructure, heat treatment, and other factors affect the test results.

Guest Editor

Prof. Dr. Dariusz Rozumek

Department of Mechanics and Machine Design, Opole University of Technology, Mikolajczyka 5, 45-271 Opole, Poland

Deadline for manuscript submissions

closed (31 May 2019)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/19654

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