metals

an Open Access Journal by MDPI

IMPACT FACTOR 2.6

CITESCORE 4.9

Laser Welding of Industrial Metal Alloys

Guest Editor:

Prof. Dr. Jose Maria Sánchez-Amaya
Universidad de Cadiz, Departamento de Ciencia de los Materiales e Ingenieria Metalúrgica y Química Inorgánica, Cadiz, Spain

Deadline for manuscript submissions:
closed (30 November 2018)

Message from the Guest Editor

Laser Beam Welding (LBW) is a contactless joining technology that minimizes the mechanical distortion and the size of the weld, as the heat source is a highly-focused and powerful laser beam. It has become a mature and convenient welding method for different alloys, due to its low heat input, high welding speed, high flexibility, high weld quality, high ability to be automated and high production rate. However, LBW has also some intrinsic disadvantages, such as the high costs of the equipment, and the strict requirements regarding laser beam adjustment and sample alignment.Papers focusing on the investigation of LBW and also Hybrid Laser Welding (HLW) of metal alloys will be very welcomed to this Special Issue of Metals. Studies dealing with LBW/HLW of metallic alloys with applications in industrial sectors (as naval, automotive and aeronautical) will be covered. Experimental studies and simulations covering relationship between laser processing parameters, microstructure, and properties (hardness, strength, corrosion resistance, etc.) will be specially interesting for this issue. In addition, innovative laser welding methods and/or equipment will be welcomed.

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