

Special Issue

Advances in High-Power Laser Beam and Laser Hybrid Welding

Message from the Guest Editors

During the last about ten years there have been tremendous advancements in the field of high-power laser beam- and laser hybrid welding. New lasers are available with powers over 10 kW and even up to 100 kW. Applications come into focus for single-layer and multi-layer laser beam welding of thick plates like in pipelines, wind energy towers, ship building, etc. *Metals* is dedicating a Special Issue on the following aspects of high-power laser beam and laser hybrid welding: welding equipment, process control and process monitoring, thick plate welding applications, joint properties, weld quality and qualification, welding defects like hot and cold cracking, and modeling and simulation Papers on high-power laser beam and laser hybrid welding (e.g., laser-GMAW; laser-SAW, laser-TIG, laser-PAW, etc.) of single- and multi-layer welding are welcome. Contributions from around the world will contribute to the success of this Special Issue, which aims at spreading the potential of high-power laser beam and laser hybrid welding.

Guest Editors

Prof. Dr. Michael Rethmeier

BAM, Bundesanstalt für Materialforschung und -prüfung, 12205 Berlin, Germany

Dr. Andrey Gumenyuk

BAM, Bundesanstalt für Materialforschung und -prüfung, 12205 Berlin, Germany

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

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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

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