Special Issue

Welding and Processing in Alloy Manufacturing

Message from the Guest Editors

Welding, also known as materials joining engineering, is an important material processing technology. In order to obtain high-quality welded joints with excellent performance and controllability, it is necessary to clarify the weldability of materials, welding metallurgy, design of structures, welding processes, etc. On the other hand, additive manufacturing (AM) process has many similarities with the conventional welding process, that is, the feedstock forms a high-temperature molten pool under the action of a high-energy density heat source. This Special Issue aims to enrich the global exchange of scientific activities in alloy welding and additive manufacturing. Topics that are appropriate for this Special Issue include, but are not limited to, alloy welds, microstructure and mechanical properties of HAZ, weldability of alloys, welding metallurgy principles, welding cracking, constitution of weld metals, development and behavior of filler metals, metallurgy of additive manufactured components and process of welding or additive manufacturing.

Guest Editors

Prof. Dr. Xinjie Di

School of Materials Science and Engineering, Tianjin University, Tianjin 300350, China

Dr. Chengning Li

School of Materials Science and Engineering, Tianjin University, Tianjin 300350, China

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

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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