Special Issue

Advanced Welding Technologies and Additive Manufacturing of Alloy and Metals

Message from the Guest Editors

This Special Issue focuses on the latest research results of welding and the additive manufacturing technology of advanced metal materials, including microstructure, mechanical properties, and the quality control of welding and additive manufacturing based on heat sources such as arc, laser, and electron beam. The key points are focused on the new strengthening mechanism, the relationship between microstructure and properties, the new microstructure control technologies, process stability, and defect on-line detection methods. The current Special Issue aims to explore the advanced welding and additive manufacturing of alloy and metals and to study the basic principles of microstructure and property regulations. The articles presented in this Special Issue will address various topics, ranging from, the exploration of advanced welding technologies, microstructure regulation, and the performance improvement of alloy and metals.

Guest Editors

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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.

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