Special Issue

Additive Manufacturing and Welding Technologies for High-Entropy Alloys and Dissimilar Metals

Message from the Guest Editors

High-entropy alloys (HEAs) are defined as alloys with five or more principal elements. As the key processing methods, the additive manufacturing and welding technologies of high-entropy alloys have an impact on the future applications and technological developments of HEAs. The selection of feasible processes with optimized parameters is essential to enhance the applications of HEAs. However, the structure of HEAs varies with material systems, welding methods, and parameters. A systemic understanding of the structures and properties of the processed samples is directly relevant to the application of HEAs. The current Special Issue aims to explore the advanced additive manufacturing and welding technologies of HEAs and to study the basic principles of microstructure and property regulations. The articles presented in this Special Issue will address various topics, ranging from, but not limited to, the design of novel types of HEAs, the exploration of advanced welding technologies, the optimization of process parameters, microstructure regulation, and the performance improvement of HEAs.

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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.

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