Special Issue

Additive Manufacturing and Innovative Welding Technologies for Light Alloys

Message from the Guest Editors

Advanced welding and additive manufacturing technologies are characterized by tremendous industrial and academic interest. One of the most important issues connected with the usage of the aforementioned technologies is their capacity of production of lightweight components with high geometrical complexity and very good mechanical properties in comparison with conventional processes. Technologies, which are the main topic of the issue, provide significantly higher design freedom, especially for single or low series production. All these advantages go hand in hand with optimal design theory, very often based on topological optimization. However, the mechanical performance of the elements obtained using innovative welding technologies or produced using additive manufacturing technologies has not been clarified yet. The main scope of this Special Issue is to provide specialistic, scientific knowledge from all fields involving mainly mechanical properties and structural analysis. The issue is dedicated to a wide range of applications, including mechanical engineering, biomedical engineering, civil engineering, material science, manufacturing, nanotechnology, tribology, and others.

Guest Editors Prof. Dr. Lucjan Śnieżek

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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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