Special Issue

Advances in Dissimilar Laser Welding

Message from the Guest Editor

Now, laser welding technology can be successfully utilized for the automatized welding of different types of steel and nonferrous alloys in similar or dissimilar joint configurations. Dissimilar welding has become a novel tool for engineers regarding the design of components or structures that require the joining of dissimilar alloys or materials. Now, laser welding can be used to join totally different materials (steels with polymers) or ferrous with non-ferrous alloys (i.e., pure copper to stainless steel). In addition, ultrafast laser may also be employed as an effective tool for connecting glass and metals. Articles that review, investigate and present innovations in the laser welding of dissimilar materials (metal–metal metal–nonmetal) are welcome for submission in this Special Issue of *Metals*. Research on the monitoring of the welding process, the laser welding of different metals and nonmetals, the numerical analysis of laser welding processes, and the metallurgical and mechanical properties of laser welding is also welcome in this Special Issue.

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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.

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