



Explosive Welding

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Message from the Guest Editor

Dear Colleagues,

The clads obtained by the method of explosive welding are composed of two or more different metals permanently joined with the use of energy of detonation of the explosive material. They are usually materials that cannot be joined with traditional methods of welding. Obtaining such a connection requires very careful selection of parameters of explosive welding, i.e., detonation velocity and the distance between the joined plates. Explosive welding allows one to obtain the required properties, such as corrosion resistance, increased hardness, resistance to high temperatures, suitable frictional properties, or special electrical properties. Application of explosive welding technologies allows one to reduce material costs.

The aim of this Special Issue is to gather the most recent research advancements in the field of explosive welding. Static and cyclic analyses (initiation and fatigue crack growth) in metallic cladding joints are of primary interest. The submitted works will show how microstructure, heat treatment, and other factors affect the test results.

Prof. Dr. Dariusz Rozumek
Guest Editor





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Message from the Editorial Board

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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