Special Issue

High-Power Pulsed Processes for the Testing, Welding and Forming of Metallic Materials

Message from the Guest Editor

High-power pulsed processes, whether via an explosion, electro-hydraulic discharge, magnetic pulse, or vaporizing foil actuators, have many advantages for diverse applications such as the welding of similar and dissimilar materials, crimping, large- and small-dimension part forming, cutting, characterization of the dynamic behavior of materials, etc. However, many locks—scientific or technological—and a lack of knowledge of these processes mean that their application in the industry remains limited. In this Special Issue of the journal *Metals*, which we hope will be useful to both the industry and researchers, we plan to bring together a set of contributions that present the state-of-the-art of high-power pulsed processes. We want to place an emphasis on:

- The presentation of the processes from both scientific and technological perspectives;
- The presentation of the specific advantages of these processes by drawing comparisons with other technologies;
- The presentation of original applications;
- The presentation of scientific and technological locks.

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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