Special Issue

Challenges and Achievements in Metal Forming

Message from the Guest Editors

The quality of products depends strongly on the material properties, processing conditions and their behavior in service conditions. The mechanical properties are determined by chemical composition, precipitation state, strain hardening and crystallographic texture. Moreover, large strains and complex strain-paths are induced by the forming processes in order to achieve more and more challenging final shapes. As a consequence, undesirable effects arise, such as distortions due to the springback, softening, earlier plastic instability, fractures, etc. These effects are consequences of the material structure and process conditions, and are possible to control by a deep understanding of the process-structure relationship. This Special Issue aims to present state-of-the-art research results related to several aspects of metal forming processes, taking into consideration all the factors involved, from the material structure to industrial applications. Full papers, communications and reviews are welcome.

Guest Editors

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Deadline for manuscript submissions

closed (31 January 2021)



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About the Journal

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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