Special Issue

Recent Progress in the Forming of High-Strength Lightweight Alloys

Message from the Guest Editor

We are pleased to invite you to publish original contributions relating to the forming of high-strength lightweight alloys. High-strength lightweight alloys such as high-strength steel, aluminum alloy, magnesium alloy and titanium alloy, are important structural metal materials with excellent characteristics of high specific strength, high specific stiffness and excellent lightweight performance, etc. This Special Issue focuses on the new forming methods of high-strength lightweight alloys. Articles concerning the theories, technologies and applications related to the forming of high-strength lightweight alloys are welcome. This will provide a broad platform for scientists and engineers in the field of material processing all over the world to showcase their latest research work. Therefore, this Special Issue will cover, without being limited to, the following fundamental and applied research topics: High-strength lightweight alloys; Material characterization; Kinetic modeling; Constitutive modeling; Deformation mechanics; Forming and joining processes; Rapid aging; Process and system modeling; Fatigue and fracture; Applications

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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