Special Issue

Lightweight Metals Processing and Technology

Message from the Guest Editor

In the field of non-ferrous metal structural materials, light weight, high strength, super-size, high temperature resistance, and corrosion resistance will be the development aims of the future. The properties of new lightweight alloys meet this development trend. With the rapid development of aerospace, rail transit and automobile, the design of lightweight components will constitute a strong demand for lightweight metals. The expansion of the range of lightweight metals with excellent performances suitable for industrial manufacturing requires extensive research to establish processes, structures, properties, and applications. As the metal alloying process becomes increasingly advanced, the performance of composite lightweight metals is improving, requiring the accumulation of applications in the manufacturing of lightweight structures. There are many methods of computation. numerical simulation, experiments, and predication used in the investigation of new lightweight metals. This Special Issue is dedicated to the latest research related to the study of process and technology of lightweight metals.

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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