Special Issue

Light Alloy and Its Application (2nd Edition)

Message from the Guest Editors

Light alloys, including magnesium-based, aluminum-based, and titanium-based materials, are widely utilized in transportation areas, such as aviation, automotive, and light rail, due to their low density and high strength-to-weight ratio. The weight reduction in transportation translates directly into fuel savings and reduced emissions, thus contributing significantly to ecological and economic sustainability. In addition, light alloys possess unique properties and are attractive for a number of specific applications—for example, the application of titanium alloys human implants is attributed to their excellent biocompatibility; the large hydrogen storage capacity and high theoretical specific capacity for battery applications mean that magnesium alloys have great potential for energy applications. To further promote the development of light alloys, we have launched this Special Issue in *Metals*, where we welcome reviews and articles in the areas of basic research, theoretical calculation, design of novel alloys, material preparation and characterization, and applications of light alloys.

Guest Editors

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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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