Special Issue

Development and Applications of New Lightweighting Metal Technologies: High Strength Al and Mg Alloys

Message from the Guest Editor

As the concerns on global warming as a result of CO2 emission are increasing, vehicle lightweighting through new structural materials has become more and more important. As a result, this Special Issue is focused on the development and applications of new lightweighting metal technologies with special attention given to high strength Al and Mg alloys. Articles concerning high strength aluminum alloys, magnesium alloys, and their processing and characterizations are welcome. This is an excellent opportunity for metallic materials scientists and engineers all over the world to get their latest work published on all aspects of the physical and mechanical metallurgy of lightweight alloys as well as processing technologies. Any new non-constructive testing such as computed tomography and process optimization such as multiscale modeling for evaluating the properties and aluminum and magnesium alloys for end applications, in automotive, aerospace, and marine fields are welcome.

Guest Editor

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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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