Special Issue

Casting and Solidification of Light Alloys

Message from the Guest Editor

Investigation of the effect of casting and crystallization on the structure and properties of the resulting light alloys, and in particular, research connected with detailed analysis of the microstructure of light alloys obtained using various external influences of ultrasonic, vibration, magnetic, and mechanical processing on the casting and crystallization, are welcomed. The use of modern methods of studying the properties of alloys in order to assess the effect of structure on the mechanical and functional properties of light alloys is planned for publication in the Special Issue. Research on the study of introduction of additives (modifiers, reinforcers, including nanosized ones, etc.) into the melt on the crystallization process, the technological properties of casting (fluidity, segregation, shrinkage, etc.), the structure and physicomechanical properties of light alloys are also of interest for this issue. It would be great to find papers that focus on the study of the relations of physicomechanical properties with the defective structure of light alloys and mathematical modeling of plastic deformation of dispersion-strengthening materials.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

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