



Phase Transformations in Alloy Processing

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Message from the Guest Editor

Dear Colleagues,

The variety of methods available for manufacturing metallic products affords great flexibility for the integrated design of alloys, processes, and components. Central to any design strategy is the effective control of microstructure and properties through processing conditions. Such control requires fundamental understanding of the mechanisms of phase transformations, quantitative knowledge regarding the influence of the prevailing process conditions, appropriate means to monitor and control these conditions, and predictive capabilities to guide the integrated design. This Special Issue is devoted to research activities aimed at innovation in these areas, facilitating realization of new or enhanced functionality through the control of alloy phase transformations. All areas of alloy processing will be considered, including solidification processing, thermo-mechanical processing, powder processing, surface processing, additive processing and others. Manuscripts conveying original research and/or critical reviews in areas relevant to these topics will be considered for publication.





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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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