Special Issue

Alloy Design and Microstructural Control of Structural Intermetallic Alloys

Message from the Guest Editor

Structural intermetallic alloys have high potential for use as high-temperature structural materials that are both wear- and corrosion-resistant, which makes them suitable for use as components of gas turbine engines or high-temperature tools working in severely oxidizing or corrosive environments. In this Special issue, we will cover the subjects of processing, alloy design, phase relation, microstructure, relationship between (micro)structure and (mechanical) properties, and development to advanced applications, among others. Moreover, articles dealing functional intermetallic alloys whose performance is directly or indirectly associated with mechanical properties are broadly solicited. It is hoped that this issue will serve as a platform for everyone—not only those who are currently developing advanced intermetallic alloys based on new concepts but also who are interested in this field.

Guest Editor

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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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