



Magnetic Properties of Heusler Alloy

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Message from the Guest Editor

Heusler alloys are materials that can combine several unique properties. These are intermetallic alloys with the chemical formula X_2YZ , where X and Y are mostly transition metals and Z are mostly semi-metals. These alloys are characterized by a wide range of physical properties. The change in physical properties can be easily achieved by replacing element Y. It has been shown that the rapid quenching method enables the production of highly homogeneous Heusler alloys, which are characterized by a higher magnetocaloric effect. Another possibility is a decrease in dimensions, which could be achieved by microwire preparation. Heusler alloys in the form of microwires are characterized by a monocrystalline structure and a structural transformation around room temperature with suitably oriented crystallographic axes. It is very important to know the magnetic properties of these compounds. In this Special Issue, we welcome articles that focus on the magnetic properties of such materials, which could be prepared using different methods, and their influence on the final products' performance.





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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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