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Fundamental Science and Applications of Highly Functional Alloys

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Message from the Guest Editor

Dear Colleagues,

In the recent industry, high functional alloy materials with plural functionality are demanded. These characteristics are toughness, high ductility, super-elasticity, low thermal expansion, high durability, etc. As for materials that are used for actuators, oscillators, or transducers, further magnetic mechanical functionality is pursued in magnetic shape memory alloys. Articles about the recent progress of superalloys, invar alloys, shape memory alloy and other alloys that have high functionality are collected in this Special Issue. It is important to investigate a physical origin to expose the mechanisms of these characteristics, scientifically, to give further functionality to these materials. With applied technology, the articles of basic science using experimental theoretical considerations are raised.

This issue will be comprised articles reporting new and progressive research results, as well as reviews of particular classes of fundamental science of the alloys and their applied applications.

Prof. Dr. Takuo Sakon
Guest Editor



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Special Issue



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Message from the Editor-in-Chief

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