Special Issue

Magnetocaloric Effect in Metals and Alloys

Message from the Guest Editor

Magnetic refrigeration produces clean energy and is a promising technology in comparison with traditional cooling techniques. This technology is based on the magnetocaloric effect where the material shows a temperature change once the applied magnetic field is changed. This Special Issue is focused on the experimental and theoretical aspects of the magnetocaloric effect in magnetic materials. The topics of interest for this Special Issue include several areas, such as the influence of alloying elements, synthesis methods, post processes, etc. on magnetic and magnetocaloric properties. This is in addition to modeling and imperical investigations of the magneticaloric effect. Manuscripts on the engineering aspects in the improvement of heat transfer between the magnetocaloric material and fluid in a magnetic refrigeration system are also welcome.

Guest Editor

Dr. Abdelmoez Hussein

School of Metallurgy and Materials, University of Birmingham

Deadline for manuscript submissions

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Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

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About the Journal

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.

Editors-in-Chief

Prof. Dr. Hugo F. Lopez
Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

Prof. Dr. Yong Zhang
Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

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