Special Issue

Latest Research in Development, Characterization and Modelling of Shape Memory Alloys Applicable in "Smart" Micro-/Nanotechnology Devices

Message from the Guest Editor

Shape memory alloys (SMAs) exhibit unique functional properties such as a shape memory effect and superelasticity. Significant progress has been achieved in design, modeling, manufacturing, and characterization of SMAs at the microscale, and there is a current trend in miniaturization of MEMS towards the nanoscale. The modeling, preparation, and characterization of SMAs at nanoscale are particularly challenging. Moreover, properties of SMAs at nanoscale are not yet fully understood, and they are currently under extensive investigation. This Special Issue of *Metals* is focused on the latest developments in SMAs for application in smart MEMS/NEMS as well as in the design, preparation, and characterization of micro-/nanostructures with SMA elements or films. Topics include but are not limited to:

- Preparation and characterization of SMAs at the micro-/nanoscale;
- SMA thin films;
- SMAs for application in MEMS/NEMS;
- Simulations and modeling of SMAs at the micro-/nanoscale;
- Ab initio simulations of SMAs;
- Biomedical application of SMAs;
- Multilayered structures with SMA components.

Guest Editor

Dr. Ivo Stachiv
Institute of Physics, Czech Academy of Sciences, 18221 Prague, Czech Republic

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

mdpi.com/journal/metals

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Message from the Editor-in-Chief

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.

Editor-in-Chief

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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