



## Research Progress of Metal Smart Materials

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Deadline for manuscript  
submissions:

**closed (31 December 2023)**

### Message from the Guest Editor

Progress in modern technologies and biomedicine, associated with robotization and environmental safety techniques, is substantially determined by the design of metal smart materials. Special smart materials with martensitic transformation (shape memory alloys) possess the functional properties necessary for the creation of actuators, sensors, dampers, solid-state refrigerators, and medicine devices operating under the action of thermal, magnetic, and/or stress fields.

This Special Issue aims to publish original research articles and critical reviews on all aspects related to new advances in processing–microstructure–property relationships and the development of conventional and magnetic shape memory alloys, including biomedical materials, and high-entropy and high-temperature shape memory alloys.

We invite to this Special Issue submissions of manuscripts that address the following topics:

- Material processing technology;
- Thermodynamics and kinetics of martensitic transformation;
- Thermo-mechanical treatment;
- Characterization of functional properties;
- Solid-state caloric cooling;
- Functional degradation and fatigue.





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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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