Special Issue

Mechanical Behavior of Shape Memory Alloys: 2022

Message from the Guest Editor

Over recent years, interest in shape material alloys has continuously increased in several fields, such as aerospace, automotive, naval, civil, and biology. The features that make shape memory alloys attractive are the ability to recover a deformation after heating and the pseudoelastic stress–strain behavior for large deformations, as well as the biocompatibility that makes these alloys extremely interesting for the bioengineering application. To effectively use shape memory alloys, an accurate description of certain characteristics such as the critical transformation temperature and stress values is mandatory. The following topics will be covered in this Special Issue, among others:

- Smart materials;
- Smart structure and devices;
- Piezoelectric materials;
- Shape memory alloys (SMAs);
- Shape memory effect (SME);
- Analytical and numerical smart materials models;
- Smart materials properties and characterizations;
- Self-recovering materials;
- SMA manufacturing, testing, and design;
- SMA thermomechanical behavior;
- SMA thermoelectric behavior.

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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