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Design, Fabrication, and Characterization of Magnetoresponse Materials and Devices

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Message from the Guest Editors

Magnetically responsive materials allow a large variety of possibilities to design, develop, and implement remotely actuated/read devices. Magnetoactive materials, including magnetorheological, magnetostrictive, magnetoresistive, magnetoelectric, and magnetocaloric materials, are attracting increasing interest, since they allow applications in areas such as energy generation, transmission and storage, memory storage, sensing and actuation, and the development of biomedical devices (tissue engineering, drug delivery, implantable devices, and biosensors). They can be found in different sizes, shapes, and configurations, such as magnetic nanoparticles, nanowires, nanorods, pellets, thin films, or nanocomposites, among others. These materials can be fabricated using different methods, including lithography/etching techniques, 2D and 3D printing, casting techniques, cutting techniques, and machining.

The scope of this Special Issue is to present advances in (i) fabrication and processing of magnetoresponse materials and (ii) development of devices based on magneto-active materials, for different applications.



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Special Issue



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Message from the Editor-in-Chief

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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