Special Issue

Physical Properties of Amorphous, Nanocrystalline, High Entropy and Lanthanides-Transition Metal Alloys

Message from the Guest Editors

Recent studies suggest that the ideal MCM lays on the border between first- and second-order phase transition, due to the fact that it combines a relatively high magnetic entropy change and broad temperature working range. This kind of alloy possesses applicative potential in active magnetic regenerators in magnetic refrigerators or heat pumps. This Special Issue will focus on magnetic alloys based on materials with an amorphous, nanocrystalline or crystalline structure. We welcome original results regarding the chemical composition, production, and investigation of magnetic materials, especially those with enormous magnetic properties. Manuscripts concerning the modeling of magnetic properties confirmed through experimental techniques will also be considered, as well as partially glass alloys, nanostructured or crystalline magnetic materials. We invite you to submit full papers, reviews or communications to this Special Issue. In all cases, the papers must demonstrate novelty and be relevant to the scope of the Special Issue.

Guest Editors

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Dr. Krzysztof Chwastek

Dr. Roman Gozdur

Deadline for manuscript submissions

closed (20 April 2025)

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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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