Special Issue

Soft Magnetic Materials: Synthesis, Properties and Applications

Message from the Guest Editor

This Special Issue is devoted to research contributions that explore the design of materials and novel technology applications for obtaining the desired properties of soft magnetic materials. This Special Issue focuses on the relationship between the various preparation/treatment aspects, crystal structure, magnetic structure and magnetic properties, including loss generation mechanism and eddy current suppression. Studies on the effect of the insertion of insulating layers on powders/nanopowders and of melt-spun ribbons on eddy current suppression and the enhancement of soft magnetic characteristics are especially welcome. This Special Issue also welcomes contributions related to the 3D printing process of soft magnetic materials and their polymer-based composites. By providing a comprehensive overview of the interplay between the loss generation mechanism and its suppression, this resource serves as a valuable reservoir of knowledge for increasing magnetic material applications.

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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