Special Issue

Low-Loss Nonoriented Electrical Steel Sheet for Energy-Efficient Electrical Drives

Message from the Guest Editor

Energy demand is rising all over the world. Simultaneously, saving energy is a global challenge for environmental and climate protection. In this regard, one focus is improving nonoriented electrical steels, which have a significant influence on losses during energy conversion and, therefore, determine the efficiency of generators and electrical drives.Research demands with regard to the optimization of electrical steel sheets result from the high complexity of the influencing factors that have to be taken into account. The mechanical and magnetic properties are influenced by the composition, microstructure, texture, and induced residual stresses of the selected material. Both, the material itself and the design concept of the machine, with the loads related to the specific application, have to be considered. During production and processing, the different interdependencies need to be understood in order to design a material for a defined application. It is my pleasure to invite you to submit a manuscript for this Special Issue and contribute to the exciting field of the material research and development of nonoriented electrical steel.

Guest Editor

Prof. Dr. Rudolf Kawalla
Institute of Metal Forming (IMF), Technische Universitat Bergakademie Freiberg, Freiberg, Germany

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials

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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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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