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Nanocomposite Magnetic Materials for Energy Conversion

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Message from the Guest Editors

Soft magnetic nanocomposites play a fundamental role in designing power electronic and electrical machine components and devices. Magnetic materials, some of which are subject to supply risks, price volatility, or concerns about long-term availability, have been shown to have significant impacts on viability, reliability, and efficiency of power conversion.

There are many aspects of the development of magnetic components to maximize their performance and efficiency in the dedicated application, such as material development and technological aspects. Nanocomposite magnetic materials are usually obtained in the form of powders, ribbons, or bulks by using various production methods, including atomization processes, mechanical alloying, wet chemical synthesis, rapid quenching methods, and additive manufacturing techniques.

This Special Issue, “Nanocomposite magnetic materials for energy conversion”, will address advances in materials science, processing, and the characterization and application aspects of various types of functional magnetic materials, including soft magnetic nanocomposites, hybrid materials, shape memory alloys, and electromagnetic absorbers.

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Message from the Editor-in-Chief

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