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Functional Magnetic Materials: From Design to Application

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Message from the Guest Editors

In recent years, progress in functional magnetic materials (FMM) and their applications has received wide and increasing attention. Magnetic materials with designs on a molecular or structural scale exhibit excellent functions and are widely utilized for their outstanding features, including their fast, long-range, and precise responses. This Special Issue aims to publish a collection of cutting-edge original research articles and reviews relating to the most recent efforts on the designs and applications of FMM in various fields, such as magnetic soft robots, magnetic levitation devices, magneto-thermal structures, magnetic-based electronics, magnetically enhanced structures, and magnetic functional devices. Studies on manufacturing and synthesis methods for FMM and advances in functional magnetic field designs are also welcome.

Keywords

- functional magnetic materials
- magnetic field design
- magneto-thermal effect
- functional devices
- magnetic-based electronics
- magnetic actuation and sensing mechanism
- magnetic levitation
- magnetic field-assisted manufacturing
- magnetic manipulation
- magnetic materials synthesis
- materials characterization



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