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The Synthesis and Prospects of Magnetic Materials

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Message from the Guest Editors

Dear Colleagues,

Magnetic materials are defined as materials with ferromagnetic or ferrimagnetic ordering. In a broad sense, they also include weak magnetic and antiferromagnetic materials which can provide magnetism and a magnetic effect. Emerging fields such as renewable energy, robotics, biomedicine and new generation communication provide further applications of magnetic materials. Magnetic materials including hard and soft magnets, magnetocaloric materials, magnetic shape memory alloys and magnetorheological fluids have attracted more attention in recent years and will undergo rapid development in the near future.

This Special Issue, entitled “The Synthesis and Prospects of Magnetic Materials”, focuses on the synthesis, preparation, microstructure and properties of various crystalline magnetic materials. We welcome reviews and research articles on crystalline magnetic materials, magnetic simulation and machine learning of these materials, as well as electromagnetic simulation of magnetic devices such as motors, inductors and sensors. We also encourage the submission of articles related to novel magnetism-related properties.

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

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