

Special Issue

Magnetic Materials: Their Synthesis, Properties and Various Applications

Message from the Guest Editor

Magnetic materials have been widely applied in various areas. Many materials, especially in form of magnetic nanoparticles (MNPs) have potential for use in a number of biomedical applications as drug localization and magnetic hyperthermia to gene transfection and targeted therapeutics, or as a component of tissue engineering scaffolds or coatings of biomaterials/devices. Many paramagnetic rare-earth metal ions such as e.g., Gd^{3+} possess a large magnetic moment due to their isotropic electronic ground state. Because of excellent magnetic resonance imaging effect observed for these ions they are used as a common MRI contrast agent. Ferromagnetic particles with large magnetic response range are suitable for the fabrication of flexible magnetic field sensors used in human health monitoring, electronic skin, and human motion detection. Our Special Issue interest is being paid to the molecular synthesis methods and mechanism, molecular structure characterization of new multifunctional molecular magnetic materials.

Guest Editor

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