

## Special Issue

# Magnetic Nanomaterials: Synthesis, Characterization and Applications

### Message from the Guest Editors

This Special Issue will cover research on magnetic nanomaterials and their synthesis, characterization, and broad potential applications, including adsorbents, chemical synthesis, energy, polymers, sensors, immobilization, biotransformation, bioremediation, therapeutics, etc.

Magnetic nanomaterials have emerged as a promising class of functional materials with diverse applications in nanobiotechnology, energy, biomedicine, and environmental remediation. These materials, often called magnetic nanoparticles, possess unique properties such as superparamagnetism, high magnetic saturation, ease of surface functionalization, a high surface area, and a large surface-to-volume ratio, making them highly versatile for various applications. Recent advances in their preparation and characterization have enabled control over their size, crystal structure, and surface properties. Further, various modification methods have been developed to produce biocompatible magnetic nanoparticles that can be effectively used to immobilize proteins for widespread applications in biosensors, biocatalysts, remediation, and affinity-based separation processes.

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## About the Journal

### Message from the Editor-in-Chief

*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.

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