

## Special Issue

# Magnetic Nanoparticle-Based Materials: Synthesis and Biomedical Applications

### Message from the Guest Editor

The development of magnetic nanoparticle-based materials has exponentially grown in recent years, with a great emphasis on biomedical applications. This Special Issue is devoted to the development and biomedical applications of magnetic nanoparticle-based systems. A focus on synthesis methods is justified due to the impact on surface chemistry, final shape, size distribution, crystallinity and magnetic properties.

Nanoparticles with anisotropic shapes or nanoassemblies (nanorods, nanowires, nanotubes, nanosheets, nanoplates, nanocubes, nanoflowers) will also be explored. The biomedical applications include contrast agents for magnetic resonance imaging, combined magnetic hyperthermia/chemotherapy, drug delivery, theranostics, and multimodal cancer therapy. The development and applications of magnetic nanoparticle-based systems, such as magnetic liposomes, magnetic microemulsions, magnetic magnetogels, magnetic/plasmonic nanoparticles, magnetolipogels, and other hybrid magnetic nanosystems are also welcome to this Special Issue.

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### Guest Editor

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### Deadline for manuscript submissions

closed (20 January 2023)



# Materials

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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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