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Magnetic Nanoparticle-Based Materials: Synthesis and Biomedical Applications

Guest Editor:

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Deadline for manuscript submissions:
closed (20 January 2023)

Message from the Guest Editor

Dear Colleagues,

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.

Dr. Elisabete M. S. Castanheira

Guest Editor

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Message from the Editor-in-Chief

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