Biological Applications of Magnetic Nanoparticles

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Magnetic nanomaterials represent one of the most important and emerging classes of materials in nanotechnology due to a range of potential applications. In particular, magnetic nanoparticles have been envisaged for various biological and biomedical applications. For example, magnetic nanoparticles can be used as drug delivery agents, which can be localized in the body at a site of interest using an external magnetic field. When exposed to an alternating magnetic field, magnetic nanoparticles can serve as powerful heat sources, destroying tumour cells, that allows to use these nanomaterials in cancer hyperthermia therapy. Magnetic fluids based on aqueous dispersions of small size magnetic nanoparticles have also been utilized as contrast agents for magnetic resonance imaging (MRI). This Special Issue is focused on the preparation, biological behaviour studies and prospective applications of magnetic nanomaterials in biology and medicine.

Prof. Yurii Gun'ko
Guest Editor

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Special Issue

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Message from the Editor-in-Chief

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