Special Issue

Advances in Magnetic Nanoparticles: Biocompatibility, Toxicity, and Biomedical Applications

Message from the Guest Editor

Magnetic nanoparticles (MNPs) have great potential in various areas such as medicine, cancer therapy and diagnostics, biosensing, and material science. With the development of nanotechnology, the emergence of novel antitumor techniques that utilize magnetic nanoparticles (MNPs) such as magnetic hyperthermia and magnetomechanical stress have been the subject of much attention and study in recent years as anticancer tools. This Special Issue will explore strategies for functionalizing MNPs to enhance biocompatibility and direct their application by binding biofunctional molecules like antibodies, ligands, or receptors, thereby increasing selectivity and sensitivity for various biological applications. Furthermore, it will examine current approaches utilizing MNPs, magnetic hyperthermia, and magnetomechanical stress in the pursuit of multifunctional cancer therapy.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Magnetochemistry constitutes a multidisciplinary field where chemists and physicists not only study magnetic properties but also design and synthesize chemical compounds with desired magnetic properties. *Magnetochemistry* is inviting contributions in any field related with this area, such as theoretical models, crystal engineering, molecular magnetism, SMM, SIM, SCM, SCO, magnetic nanostructures, magnetic MOFs, magnetic recording, qubits, magneto-caloric materials, etc. Our goal is to share your contribution in a timely fashion and in a manner that will be valued by the scientific community.

Editor-in-Chief

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