Biological application of magnetic nanoparticles

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Summary

Magnetic nanoparticles constitute a very attractive field o research and application of nanomagnetism in life sciences. The relevance of the controllable nanometric scale made then corresponding system with elemental biological unit such as: cells, virus, proteins and peptides. Magnetic nanoparticles provide a functional action based in their magnetic behavior, but in addition they can be functionalized with biological moieties opening a tremendous field of applications in health and environmental sciences. In this symposium we propose to attract scientist working in the field of biomedicine: nanodiagnosis (biosensors, MRI), nanotherapy (targeting and drug release, magnetic hyperthermia), cell uptake and proliferation and the emerging field of the application in food, agriculture and environment science.