

Ferrite Nanoparticles for Biomedical Application

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Abstract: *Ferrite nanoparticles have gained a lot of attention in recent years due to their applications in diverse fields and particularly in the biomedical field where their enhanced magnetic properties offer diversity in imaging, diagnosis and treatment. The ferrite nanoparticles have been widely used for biomedical applications for their inherent biocompatibility and good binding properties with most of the chemicals. The significant magnetization and superparamagnetic behaviour of the ferrite nanoparticles suggest the usage of streptokinase coated ferrite nanoparticles as potential candidates for targeted drug delivery systems. These biological studies require supporting physical characterization studies on ferrite nanoparticles. This work examines the magnetization and FTIR spectroscopy on a batch of chemically synthesized ferrite nanoparticles.*

Keywords: Nanoparticles; Magnetization; Superparamagnetic; Streptokinase

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BIOGRAPHY

At present Ms. Meghna A. Merchant is pursuing her PhD programme under the guidance of Prof. Vaishali A. Bambole from Department of Physics, University of Mumbai. She has obtained herdegrees M.Sc. and M. Phil from University of Mumbai. Ms. Meghna A. Merchant has worked as an Assistant Professor in Physics at Veermata Jijabai Technological Institute, Rizvi College of Engineering, Vidyavardhini College of Engineering and Technology.