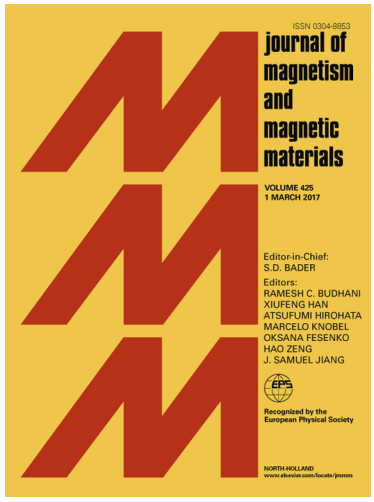

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The Use of Magnetic Targeting forDrug Delivery into Cardiac Myocytes

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Abstract

With the continuous technological advancements being made in the medical field every day, the ability to improve drug delivery uptake in cardiac research is a prominent topic of discussion. Nanoparticles provide the opportunity to improve the efficiency of drug therapy while minimizing chemotherapy side effects through controllably releasing the encapsulated drug at the target site. Mono-disperse Fe_3O_4 nanoparticles/polystyrene composite nanospheres with a large volume fraction of trapped magnetite and fluorophores were used in an *in vivo* experiment. In this study, magnetic nanoparticles were successfully delivered into the heart by utilizing magnetic targeting. Magnetic targeting allowed the mono-disperse Fe_3O_4 nanospheres to be