

Preparation and application the biodegradable polymer nano-particle in encapsulated magnetite and drug

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The nanoprecipitation method first described by Fessi et al. which is straightforward, rapid and based on a simple principle. Nanoprecipitation technique has distinct advantages such as no use toxic component, reproduction nanosize particle with narrow distribution.

Encapsulated technique takes place in two steps, dissolution of a polymer and dispersion organic magnetite and drug in a water-miscible solvent and poured it in aqueous solution under moderate mixing at room temperature. Nanoprecipitation occurs by particle diffusion between the aqueous phase and the solvent of polymeric phase that bring about a mixture in which the polymer contained magnetite precipitates to form nanoparticles.

This polymer particle in encapsulated system can be used contrast media at MR imaging and drug delivery system.

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