

## One-Pot Synthesis of Magnetite Hollow Spheres and Their Potential Application as Drug Carriers

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We successfully prepared monodisperse  $\text{Fe}_3\text{O}_4$  hollow spheres with a size of about 180 nm and core diameter of about 135 nm via solvothermal process without using any template. Those nanospheres consisted of many building blocks of smaller magnetite nanoparticles. The magnetism investigation showed that they exhibited a ferromagnetic behavior with a saturation magnetization of about  $81 \text{ emu g}^{-1}$ . In addition, the application of those hollow spheres as drug carriers was demonstrated by using Rhodamine 6G (R6G) as a model drug. Those particles were also expected to have promising applications in other research fields such as bioseparation and catalysis.