

Shape-Controlled Synthesis of Magnetic Nanoparticles by Co-precipitation Method

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Recently, magnetic nanoparticles have gained a lot of attention due to their technological and scientific importance. A number of strategies have been developed to prepare magnetic nanoparticles. These include “hot injection” method, “heating-up” method, and “aqueous precipitation” method. However, there is little information on the synthesis of shape-controlled magnetic nanoparticles by “aqueous co-precipitation” method.

In this study, we show that controlling of the reaction conditions allows one to control the shape and crystallinity of magnetic nanoparticles.