Synthesis of Multiferroic Nanocomposites by a Polyol Method

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Abstract The material design and synthesis are of important to modern science and technology. Here, we report the synthesis of multifunctional nanomaterials with different properties: ferroelectric YMnO3 and multiferroic materials such as CoFe2O4-YMnO3, Fe2O4-YMnO3, CoFe2O4-Cd0.85Zn0.15S, and Fe2O4-Cd0.85Zn0.15S nanocomposites by using a chemical synthesis process. These results provide a simple and convenient synthesis process to produce multifunctional nanocomposites.

Keywords: Multifunctional nanocrystals, Monodisperse, Nanomaterial, Ferromagnetic, Ferrimagnetic, Polyol method