



A study of the effect of annealing temperature on structural and magnetic properties of LiFeO (Lithium Ferrite) nanomaterials and synthesized by citrate precursor method

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Received : November 2011
Accepted : March 2012
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Abstract: *Lithium ferrite (LiFeO) nanoparticles were synthesized using chemical based Citrate precursor method. The citrate precursor was annealed at temperatures 700C and 800C. The annealed powder were characterized using X-ray diffraction and Vibrating sample magnetometer. The average particle size was determined using Scherrer equation and its crystalline size were found to be 56nm and 86nm at annealing temperatures 700C and 800C respectively. The magnetic parameters were found different for these two samples. The magnetization, coercivity and retentivity were found 23 emu/g, 135G, 9emu/g at annealing temperature 700C and 59 emu/g, 55G, 6 emu/g at annealing temperature 800C respectively.*

Keywords : Ferrite, Nanoparticles, Annealing temperature, Magnetic behaviour.

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