**Study of magnetic properties of (x= 0.0, 0.5) Spinel**

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**Abstract**

Using solid state reaction method, (x= 0.0, 0.5) bulk spinel are successfully synthesized. Room temperature x-ray diffraction pattern confirm that sample are crystallized in cubic crystal structure. Morphology of the sample is investigated using FESEM micrograph. Temperature variation of magnetization (M-T) measurement indicate ferrimagnetic behaviour of with = 44.64K and spin glass behaviour of with = 17.72K. We have recorded the M-H data for the sample at different - different temperature. It has been observed that the magnetic saturation and coercivity are decaying with respect to rise in temperature.

**(a)**

**(b)**

Fig : (a) ZFC and FC, M versus T plot at An applied field of H = 200Oe and (b) Inverse susceptibility versus temperature plot of x = 0.0 sample of

**References**

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