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Type: **Poster Presentation**

Magnetic properties of $\text{Sn}_{0.2}\text{Cr}_{1.8-x}\text{Fe}_x\text{O}_4$ nanooxides.

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Abstract content **
 **(Max 300 words)

We report the magnetic properties of $\text{Sn}_{0.2}\text{Cr}_{1.8-x}\text{Fe}_x\text{O}_4$ ($x = 0.3, 0.5, 0.7$ and 0.9) compounds. The oxides were produced by hydrothermal process and sintered at $600\text{ }^\circ\text{C}$ for 12 hours. The X-ray diffraction (XRD) data indicate formation of single phase corundum structure in all the samples. The Mössbauer spectra recorded at about 300 K show transition from paramagnetic to ordered magnetic spin state at $x = 0.5$. The magnetization data have been obtained by using a VSM (PPMS) of Quantum design make. The exchange bias effect has been observed at low temperatures in all the samples.

Keywords: Exchange bias, Nanoparticles, Magnetization,

Apply to be **
 considered for a student
 **award (Yes / No)?

yes

Level for award **
 **(Hons, MSc, **
 **PhD)?

PhD

Main supervisor (name and email) **
and his / her institution**

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Would you like to **
 submit a short paper
 for the Conference
 Pro- ceedings (Yes / No)?**

yes

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