

Abstract Submitted  
for the MAR08 Meeting of  
The American Physical Society

**Magnetic behaviour of the  $\text{Bi}_{2-x}\text{Sr}_x\text{Ir}_2\text{O}_7$  pyrochlore** CARLOS COSIO-CASTANEDA, OLIVER MARTINEZ-ANAYA, GUSTAVO TAVIZON, Facultad de Quimica, PABLO DE LA MORA, Facultad de Ciencias, FRANCISCO MORALES-LEAL, ROBERTO ESCUDERO, Instituto de Investigaciones en Materiales — Compounds of the  $\text{Bi}_{2-x}\text{Sr}_x\text{Ir}_2\text{O}_7$  solid solution have been synthesized by the solid state reaction method. Structural modifications as well the valence states of Iridium have been studied as a function of the strontium content by Rietveld refinements and electrochemical analytical methods. Electrical properties of  $\text{Bi}_{2-x}\text{Sr}_x\text{Ir}_2\text{O}_7$  show single phase and metallic behaviour in the whole range of compositions. Magnetically this system behaves as a Curie-Weiss paramagnet from 2-300 K. the magnetic moment suggests the presence of  $\text{Ir}^{5+}$  valence state.

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Date submitted: 27 Nov 2007

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