

Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Magnetic Field Dependent Changes in the Local Structure of ReMn_2O_5 M. DELEON, T.A. TYSON, Z. CHEN, NJIT, S.-W. CHEONG, Rutgers University — The low temperature structure of ReMn_2O_5 systems has been studied by x-ray absorption spectroscopy. Temperature dependent measurements indicate that Re-O correlations play an important role in the low temperature properties. While no variation in the Mn-O distribution is observed with magnetic fields, we find evidence for direct coupling of the Re-O distribution to an external magnetic field. The results suggest that polarization of the Re-O bonds may contribute significantly to magnetic field induced electrical polarization. This work is supported by DOE Grant DE-FG02-07ER46402.

T. A. Tyson
NJIT

Date submitted: 26 Nov 2008

Electronic form version 1.4