Abstract Submitted
for the MAR10 Meeting of
The American Physical Society

High pressure structure of Orthorhombic Multiferroic Systems L. WANG, Mineral Physics Institute, Stony Brook University, T. WU, T.A. TYSON, H. CHEN, Department of Physics, New Jersey Institute of Technology, S. KIM, S.-W. CHEONG, Department of Physics and Astronomy, Rutgers University, MINERAL PHYSICS INSTITUTE, STONY BROOK UNIVERSITY TEAM, DEPARTMENT OF PHYSICS, NEW JERSEY INSTITUTE OF TECHNOLOGY TEAM, DEPARTMENT OF PHYSICS AND ASTRONOMY, RUTGERS UNIVERSITY COLLABORATION — It is know that pressure modifies the ferroelectric properties of orthorhombic perovskite systems. However, only limited structural studies have been performed. Here we report structural measurements of the impact of pressure on Orthorhombic $REMnO_3$ multiferroic systems using x-ray diffraction and x-ray absorption to probe the structural changes. Comments on the influence of pressure on the electrical polarization will be made. This work is supported by DOE Grant DE-FG02-07ER46402.

Tao Wu
Department of Physics, New Jersey Institute of Technology

Date submitted: 19 Nov 2009 Electronic form version 1.4