Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Sorting Category: 07.1.1 (E)

Synthesis of Perovskite $ScMnO_3$ under High Temperature and Pressure[1] TIAN YU, PENG GAO, Department of Physics, New Jersey Institute of Technology, TREVOR A. TYSON, Dept of Physics, New Jersey Institute of Technology; Dept of Physics and Astronomy & Rutgers Center for Emergent Materials, Rutgers University, H. CHEN, Department of Physics, New Jersey Institute of Technology, J. BAI, Oak Ridge National Laboratory — Perovskite type $ScMnO_3$ was synthesized under high temperature and pressure starting with hexagonal $ScMnO_3$. The detail of the structure is examined by synchrotron x-ray diffraction and IR spectroscopy at room temperature. A highly distorted perovskite phase which is similar to the structure of $LaMnO_3$ is identified by XRD Rietveld Refinement. Due to the small Sc ion radius, each Mn site has a distorted MnO_6 polyhedron. This work is supported by DOE Grant DE-FG02-07ER46402.

[1]DOE Grant DE-FG02-07ER46402

[X] Prefer Oral Session
[ ] Prefer Poster Session

Tian Yu
ty26@njit.edu
New Jersey Institute of Technology

Date submitted: 13 Feb 2012 Electronic form version 1.4