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Low Temperature Structural of $ScMnO_3$ PENG GAO, TIAN YU, TREVOR A. TYSON, Department of Physics, New Jersey Institute of Technology, XINGUO HONG, ZHIQIANG CHEN, Mineral Physics Institute, Stony Brook University, SANJIT GHOSE, National Synchrotron Light Source II, Brookhaven National Laboratory, LARS EHM, Mineral Physics Institute, Stony Brook University, ZHENXIAN LIU, Geophysical Laboratory, Carnegie Institution of Washington —
We present the temperature dependent structural changes of hexagonal $ScMnO_3$ probed on multiple length scales. These measurements are compared by IR results. These results are used to assess the structural changes across the Néel temperature which may coincide and couple with the ferroelectric behavior. This work is supported by DOE Grants DE-FG02-07ER46402 (NJIT), by COMPRES, the Consortium for Materials Properties Research in Earth Sciences under NSF Cooperative Agreement EAR 10-43050 (X17B3) and EAR 01-35554 (U2A), and by the U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences, under Contract No. DE-AC02-98CH10886 (for use of the National Synchrotron Light Source at Brook Haven National Laboratory).

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