Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

ARPES investigation of the electronic properties of $PdCoO_2$[1] I.M. VISHIK, W.S. LEE, Stanford University, H. TAKATSU, Kyoto University, D.H. LU, R.G. MOORE, Stanford University, Y. MAENO, Kyoto University, Z.-X. SHEN, Stanford University — The triangular-lattice layered cobaltates have emerged as an exciting new correlated electron system. Although tremendous progress has been made with Sodium Cobaltate (Na_xCoO_2) there still remain disputes, most notably, the precise Fermi surface topology. In order to gain another perspective, we have studied a related compound, Palladium Cobaltate ($PdCoO_2$). This is a chemically stable metallic oxide that can be prepared with very high purity, allowing us to study a clean system that lacks the complications introduced by doping in Na_xCoO_2. We present the first ARPES measurements on $PdCoO_2$, focusing on determining the Fermi surface topology, comparing observed band structure to theory, and making connections with bulk measurements.

[1]This work is supported by DOE Office of Science, Division of Materials Science, with contract DE-FG03-01ER45929-A001 and NSF grant DMR-0604701.

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Date submitted: 27 Dec 2007 Electronic form version 1.4