Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Electronic band structure of Pr-based filled skutterudite antimonides[1] J.W. ALLEN, B.J. KIM, RAVI S. SINGH, University of Michigan, O. KRUPIN, J.D. DENLINGER, Lawrence Berkeley National Lab, R.E. BAUMBACH, M.B. MAPLE, UC San Diego — Filled skutterudites exhibit a wide range of strongly correlated electron phenomena including heavy fermion, superconductivity, non-Fermi liquid and quantum critical behaviors. Knowledge of the electronic structures of these materials is almost entirely from band calculations and dHvA studies. We present the first angle-resolved photoemission spectroscopy (ARPES) measurements of the filled skutterudites antimonides: $PrOs_4Sb_{12}$ and $PrRu_4Sb_{12}$. Band dispersions and Fermi surface maps of these three-dimensional materials will be discussed and compared to available LDA band structure calculations.

[1]Supported by the U.S. DOE at the Advanced Light Source (DE-AC02-05CH11231), at UM (DE-FG02-07ER46379) and UCSD (FG02-04ER46105 & FG02-04ER46178).

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Date submitted: 01 Dec 2008 Electronic form version 1.4