Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Angle Resolved Photoemission Spectroscopy of Single Crystal Uranium (001)[1] C.P. OPEIL, R.K. SCHULZE, R.C. ALBERS, B. MIHAILA, K.B. BLAGOEV, M.E. MANLEY, J.C. LASHLEY, J.L. SMITH, Los Alamos National Laboratory, P.B. LITTLEWOOD, Cavendish Laboratory, University of Cambridge — Using Angle Resolved Photoemission Spectroscopy (ARPES) we measured the energy dispersion for binding energy (BE) < 8 eV at 173 and 373 K on a high quality uranium single crystal (001) along the principle crystallographic directions Γ to Y, Σ, and S. These measurements are compared with WIEN2K band structure calculations. We report significant correspondence between our band dispersion and theoretical calculations. Temperature and electron correlation effects will be discussed.

[1]Work performed under the auspices of the US Dept. of Energy.

C. P. Opeil
Los Alamos National Laboratory

Date submitted: 11 Jan 2006 Electronic form version 1.4