Abstract Submitted
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Ferromagnetic order at 298 K in $Cr_{0.005}Sn_{0.995}Te$[1] JASON C. LASHLEY, JAMES L. SMITH, JAMES E. GUBERNATIS, ROLAND K. SCHULZE, BOGDAN MIHAILA, ROBERT D. FIELD, Los Alamos National Laboratory, CYRIL P. OPEIL, Boston College, PETER B. LITTLEWOOD, Cavendish Laboratory, ELI ROTENBERG, AARON BOSTWICK, Advanced Light Source Berkeley — We observe ferromagnetic ordering at 298 K by magnetic susceptibility measurements. In addition we observe a structural transition at 98 K that has been attributed to ferroelectricity. Transmission electron microscopy at 300 K shows a modulated cubic structure thereby challenging the heretofore accepted B1 rocksalt structure. Ramifications of these results plus Fermi surface measurements made by angle resolved photoemission using synchrotron radiation will be given.

[1]Work performed under the auspices of the USDOE.

James Smith
Los Alamos Natl Lab

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