Abstract Submitted
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Study of low carrier density heavy fermion $Ce_3Au_3Sb_4$[1] HAN-OH LEE, Department of Physics, University of California, Davis, PETER KLAVINS, Department of Physics, University of California, Davis, California, 95616, ZACHARY FISK, Department of Physics, University of California, Davis, California, 95616, CATHIE CONDRON, Department of Chemistry, University of California, Davis, California, 95616, A. D. CHRISTIANSON, Department of Physics and Astronomy, University of California, Irvine, California, 92698-4575, J. M. LAWRENCE, Department of Physics and Astronomy, University of California, Irvine, California, 92698-4575, J. S. GARDNER , Physics Department, Brookhaven National Laboratory, Upton, New York, 11973-5000,NIST Center for Neutron Research, National Institute — $Ce_3Au_3Sb_4$ is a narrow gap semiconductor with a well localized Ce^{3+} state. The specific heat measurements, however, show a Kondo impurity like behavior with a large increase of the specific heat coefficient at low temperature, suggesting a heavy fermionic character in this low carrier concentration system. Magnetic susceptibility, resistivity, and specific heat data will be shown for single crystal $Ce_3Au_3Sb_4$. The dilution study with La substituted on the Ce site will be also presented to further discuss the Kondo effect in this system.

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