Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Transport and magnetic properties of $Ce_{1-x}La_xCu_2Ge_2$ single crystals[1] HALYNA HODOVANETS, SERGEY L. BUD'KO, VALENTIN TAUFOUR, HYUNSOO KIM, WARREN E. STRASZHEIM, PAUL C. CANFIELD, Ames Laboratory and Department of Physics and Astronomy, Iowa State University, Ames, IA — We present magnetic-susceptibility, resistivity, heat-capacity, and thermoelectric power measurements on single crystals of La-diluted Kondo lattice $CeCu_2Ge_2$. The results of these measurements show that the antiferromagnetic temperature T_N is suppressed in almost linear fashion with increasing of La concentration. The magnetic order was observed from x=0 (T_N=4.15 K) up to x=0.80 where T_N=0.56 K with 0.38 K being the lowest base temperature in our measurements. The characteristic Kondo temperature was found to decrease from 4 K to 1 K rather slowly. For the lowest concentrations of La, the heat capacity was shown to follow the prediction of the Kondo-impurity model.

[1]Supported by the Department of Energy, Basic Energy Sciences under Contract No. DE-AC02-07CH11358 and the AFOSR -MURI grant No. FA9550-09-1-0603.

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Date submitted: 13 Nov 2013 Electronic form version 1.4