Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Sorting Category: 11.4 (E)

Doping effects of $CeCo_{1-x}Ru_xIn_5$ M.N. OU, Los Alamos National Laboratory; Institute of Physics-Academia Sinica, Y.Y. CHEN, Institute of Physics-Academia Sinica, O. JANKA, S.M. KAUZLARRICH, University of California, K. GOFRYK, R.E. BAUMBACH, E.D. BAUER, J.D. THOMPSON, F. RONNING, Los Alamos National Laboratory — $CeCoIn_5$ lies in close proximity to a QCP which can be tuned with chemical doping, pressure or magnetic field. In this work, single crystals of Ruthenium doped $CeCoIn_5$ were prepared by means of self-flux in Indium. The lattice structure of $CeCo_{1-x}Ru_xIn_5$ was identified as tetragonal by powder XRD with slightly increasing lattice constants. The results of electrical resistivity down to 1.8 K reveals that both coherence (T*) and superconducting transition (Tc) temperatures are decreasing monotonically with increasing Ru doping. Antiferromagnetism is anticipated on the basis of both negative chemical pressure and hole doping. Transport and thermodynamic data will be compared and contrasted with results from Rh and Cd doping.

[X] Prefer Oral Session
[ ] Prefer Poster Session

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Date submitted: 13 Dec 2011 Electronic form version 1.4