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Magnetic and electrical transport properties of $Ce_{1-x}Nd_xCoIn_5$ CEDOMIR PETROVIC, Condensed Matter Physics, Brookhaven National Laboratory, Upton NY 11973, JACOB HUDIS, Department of Physics and Astronomy, Johns Hopkins University, Baltimore MD 21218, RONGWEI HU, Condensed Matter Physics, Brookhaven National Laboratory, Upton NY 11973, YONGJAE LEE, Department of Earth System Sciences, Yonsei University, Seoul 120749 Korea, VESNA MITROVIC, Physics Department, Brown University, Providence RI 02912, COLLIN BROHOLM, Department of Physics and Astronomy, Johns Hopkins University, Baltimore MD 21218 — Single crystals of $Ce_{1-x}Nd_xCoIn_5$ ($0 \le x \le 1$) were grown by molten metallic flux technique. Synchrotron powder X-ray diffraction confirms phase purity and smooth evolution of the lattice parameters with increased Nd concentration. Evolution of the ground state in this alloy series between heavy fermion superconducting for x = 0 (CeCoIn₅) and antiferromagnetic for x = 1 (NdCoIn₅) will be presented.

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