

Abstract Submitted
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The effect of annealing to the transport and magnetic properties of electron-doped $\text{Pr}_{0.88}\text{LaCe}_{0.12}\text{CuO}_4$ SHILIANG LI, Department of Physics and Astronomy, The University of Tennessee, Knoxville, Tennessee 37996-1200, USA, STEPHEN WILSON, SONGXUE CHI, PENGCHENG DAI¹, Department of Physics and Astronomy, The University of Tennessee, Knoxville, Tennessee 37996-1200, USA, SEIKI KOMIYA, Central Research Institute of Electric Power Industry, Komae, Tokyo 201-8511, Japan, YOICHI ANDO — The single crystals of electron doped cuprate $\text{Pr}_{0.88}\text{LaCe}_{0.12}\text{CuO}_{4+\delta}$ have been grown by floating-zone method. As-grown, the samples exhibit long-range antiferromagnetic order without superconductivity. Superconductivity only appears after annealing the sample in pure Ar or vacuum. We present a detailed investigation on how annealing conditions affect the in-plane and *c*-axis resistivity and hall coefficients. We will also discuss the chemical compositions of these samples before and after annealing.

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