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HiTc Resistivity Measurements and QCP in CLBLCO Superconductors YAKOV ECKSTEIN, Technion, Haifa, Israel; Northwestern University, Evanston, IL, BYRON WATKINS, Northwestern University, Evanston, IL, KHANAN CHASHKA, ARKADY KNIZHNIK, Technion, Haifa, Israel — Measurements of resistivity in ceramic $(Ca_xLa_{1-x})(Ba_{c-x}La_{2-c+x})Cu_3O_y$ for (1) c=1.75 and (2) c=1.5 were taken as function of oxygen y. By using oxygen doping for the case (1) and x=0.1, one can dope this compound from non SC (superconductivity) underdoped to non SC overdoped. In the underdoped region there exists a temperature such that below this T, dR/dT is negative before superconductivity sets in. We also find dR/dT becomes negative at low T for the non superconducting samples in the extreme overdoped regime. No quantum critical point (QCP) is observed for doping less than y=7.334, which constitutes the entire SC range. The compound with c=1.5 and x=0 is never superconducting. All these samples exhibit negative slope in their R-T characterizations. The temperature at which dR/dT becomes negative is lower when doping in higher.

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