

Abstract Submitted
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Hall Effect in CLBLCO Superconductors BYRON WATKINS, Northwestern University, Evanston, IL, KHANAN CHASHKA, ARKADY KNIZHNIK, Technion, Haifa, Israel, YAKOV ECKSTEIN, Technion; Northwestern University — Electrical charge transport carrier concentration trends were observed with Hall effect experiments in $(\text{Ca}_x\text{La}_{1-x})(\text{Ba}_{1.75-x}\text{La}_{0.25+x})\text{Cu}_3\text{O}_y$. All values of x yield similar trends in R_H vs. T , but increasing doping (y) reduces R_H as expected. All samples that exhibit superconductivity (SC) also exhibit a maximum Hall coefficient at approximately $2T_C$. Contrarily, in the extreme doping cases (non SC samples) no maxima are observed and the underdoped cases exhibit insulator-like increased R_H at lower T . A full description of experiment and analysis will be presented.

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