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Transport Properties in Electron-Doped $La_{2-x}Ce_xCuO_4$ Thin Films[1] KUI JIN, XIAOHANG ZHANG, PAUL BACH, RICHARD GREENE, University of Maryland, College Park — The electron-doped high-Tc cuprate $La_{2-x}Ce_xCuO_4$ (LCCO) is quite different from other members, such as $Pr_{2-x}Ce_xCuO_4$ (PCCO) and $Nd_{2-x}Ce_xCuO_4$ (NCCO). One distinct difference is that the optimal Ce doping in LCCO is $\sim$0.10, compared to Ce $\sim$0.15 in PCCO and NCCO. Here, we will present a detailed and systematic study of the magnetic field and temperature dependence of the transport properties of LCCO, including the low-temperature Hall effect and in-plane angular magnetoresistance.

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