Abstract Submitted
for the SES05 Meeting of
The American Physical Society

**Field and Temperature Dependent Transmission of $Pr_{2-x}Ce_xCuO_4$**[1] NAVEEN MARGANKUNTE, DAVID TANNER, Dept. of Physics, University of Florida, 32611, USA, ALEXANDRE ZIMMERS, RICHARD GREENE, Center for Superconductivity Research, Dept. of Physics, University of Maryland, College Park, MD, 20742, USA, YONG-JIE WANG, National High Magnetic Field Laboratory, Florida State University, Tallahassee, FL 32306, USA — We report mid-infrared transmission measurements of electron doped $Pr_{2-x}Ce_xCuO_4$(PCCO) thin films for a wide range of dopings, in the large energy pseudogap regime both as a function of temperature and magnetic field. While there are large temperature dependent changes (indicative of the formation of the pseudogap) in the underdoped regime, a magnetic field up to 30 T does not induce any change in transmission within the experimental signal to noise resolution.

[1]NM and DBT acknowledge support from the DOE. DE-AI02-03ER46070, and the NSF, DMR-0305043.

Naveen Marganknte
Dept. of Physics, University of Florida, Gainesville, FL 32611, USA

Date submitted: 09 Aug 2005 Electronic form version 1.4