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Doping dependence of the pseudogap in $\mathbf{Pr_{2-x}Ce_xCuO_4}$[1] R.L. GREENE, M.M. QAZILBASH, YORAM DAGAN, Center for Superconductivity Research, Department of Physics, University of Maryland, College Park, Maryland 20742, USA. — The temperature dependence of the in-plane tunneling conductance was measured for many doping levels of $Pr_{2-x}Ce_xCuO_4$ (PCCO) x=0.11-x=0.19 using planar lead/Insulator/PCCO junctions on thin films and single crystals. At low temperatures and zero field the lead features are clearly seen, indicating good tunnel junctions with negligible leakage currents. When superconductivity in the PCCO electrode is quenched a normal state gap is seen at all doping levels studied. We find it to vanish above a certain temperature T*. T* is greater than T_c for the underdoped region and it follows T_c on the overdoped side. This behavior suggests finite pairing amplitude above T_c on the underdoped side. The data and interpretation differ from previously publish ones [1]. [1] L. Alff *et al.* Nature (London) 422, 698 (2003).

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