

Abstract Submitted
for the MAR07 Meeting of
The American Physical Society

Scanning Tunneling Spectroscopy of $\text{Bi}_2\text{Sr}_2\text{CuO}_{6+x}$ KAMALESH CHATTERJEE, M.C. BOYER, W.D. WISE, MING YI, MIT, TAKESHI KONDO, Ames laboratory, E.W. HUDSON, MIT — Scanning tunneling microscopy has revealed many interesting spectral features of the high temperature superconductors, including the nature of atomic scale defects like single atom impurities and magnetic vortices and the existence of inhomogeneity. Most of these studies have focused on the bilayer compound $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ (Bi-2212). Here we present scanning tunneling microscopy results from its single layer relative, $\text{Bi}_2\text{Sr}_2\text{CuO}_{6+x}$ (Bi-2201), comparing and contrasting these measurements with previously reported results from Bi-2212.

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Date submitted: 20 Nov 2006

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