Abstract Submitted
for the MAR07 Meeting of
The American Physical Society

Temperature-Dependent STM Studies of the High Temperature Superconductor BSCCO MING YI, KAMALESH CHATTERJEE, M.C. BOYER, W.D. WISE, MIT, TAKESHI KONDO, Ames Laboratory, E.W. HUDSON, MIT — Even as the relationship between the superconducting and pseudogap states in high temperature superconductors remains mysterious, scanning tunneling microscopy has revealed a number of similarities and differences between spectroscopy in the two phases. Unfortunately, until now spectra from the same position have not been reported. Here we present results of spectroscopy on identifiable atoms, followed from 4 K to well above the superconducting transition temperature. In particular we will focus on implications for the relationship between the superconducting and pseudogap phases in BSCCO.

Ming Yi
MIT

Date submitted: 20 Nov 2006 Electronic form version 1.4