Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Tunneling Spectral Dip Feature in High Tc Cuprates: Experiment and Analysis JOHN ZASADZINSKI, LIAM COFFEY, CIHAN KURTER, Illinois Institute of Technology, KEN GRAY, Argonne National Laboratory — A fully self-consistent Eliashberg analysis is presented to analyze the spectral dip feature observed in tunnel junctions on Bi2212. Methods include SIS break junctions, intrinsic Josephson junctions in mesas and SIN junctions from STM. This analysis is presented for a variety of doping levels and the resulting electron-boson spectral function and self-energy is compared with other spectroscopic probes. Evidence of spectral dip features in other high Tc cuprates is presented including Tl2212 to demonstrate the universality of the spectral dip and its relation to the mechanism of pairing.

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Date submitted: 21 Nov 2008 Electronic form version 1.4