Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

First background free measurement of the inelastic tail of the Auger electron spectrum down to 0 eV[1] A. H. WEISS, S. MUKHERJEE, M.P. NADESALINGAM, N. G. FAZLEEV, U. Texas at Arlington — Background free measurements of the inelastic tail of the Auger electron energy spectrum were performed by using very low energy positrons to excite Auger transitions in Au and Cu via positron-electron annihilation. The kinetic energy of the incident positrons (1.5eV) was set below the energy threshold required to excite secondary electrons resulting in a Auger spectra that was completely free of collision induced secondary electrons. The measured spectra contain contributions solely from either annihilation induced Auger electrons or annihilation induced Auger electrons that have lost energy on the way out. By using the time of flight technique it was possible to measure the inelastic tail of the Auger electron energy spectrum down to 0 eV.

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Date submitted: 27 Nov 2007 Electronic form version 1.4