Abstract Submitted for the MAR12 Meeting of The American Physical Society

Estimating the contributions to the Low Energy Tail in Cu and Ag (100) using Positron Annihilation Auger Electron Spectroscopy<sup>1</sup> K. SHASTRY, P.V. JOGLEKAR, S. SATYAL, A.H. WEISS, Univ of Texas at Arlington — Low energy Auger lineshapes are difficult to measure because they sit on a large background due to secondary electrons arising from loss processes unrelated to the Auger mechanism. In this poster we discuss the implications of our Positron Annihilation Auger electron Spectroscopy (PAES) measurements of the ratio of the integrated Auger Peak and integrated low energy tail (LET) intensities for comparisons between theoretical and measured values of the Auger intensities. The experiments were carried out at university of Texas at Arlington on Ag (100) crystal. The various contributions to the low energy tail are highlighted in terms of processes intrinsic and extrinsic to the Auger mechanism. Our conclusions regarding the importance of the LET in determining the ratio of electrons in the Auger peak to the number of initial core holes are discussed in light of the electron stimulated Auger results obtained by Seah et al. using monte carlo simulations on various elements.

<sup>1</sup>NSF DMR 0907679

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Date submitted: 22 Nov 2011

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