

Abstract Submitted  
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**Background suppressed measurements of the Low Energy CVV Auger transitions in Cu and Ag(100)**<sup>1</sup> K. SHASTRY, UTA, S. MUKHERJEE MUKHERJEE, NCSU, S. KALASKAR, UTA, S.L. HULBERT, BNL, B.R. BARTYNSKI, Rutgers Univ, A.H. WEISS, UTA — 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. Auger photoelectron coincidence spectroscopy (APECS) was used to the spectrum of the MVV and NVV Auger peaks and associated low energy tails (LETs) in Cu and Ag (100) respectively. The backgrounds due to secondary electrons unrelated to the auger process were suppressed by measuring the Auger spectra in coincidence with the M and N core levels. The APECS measurements reveal a well formed Auger peak at 40 and 60 eV for Cu and Ag respectively accompanied by a significant Auger related intensity in the low energy region. Spectra obtained using APECS are compared with Positron Annihilation Induced Auger Electron Spectroscopy (PAES) measurements which also show a large LET. The LET is discussed in terms of extrinsic mechanisms in which the electrons from the peak lose energy as they propagate to the sample surface and intrinsic mechanisms in which multi- electron auger processes distribute the energy gained by filling of the core hole to multiple electrons.

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K. Shastry  
UTA

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