

Abstract Submitted
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Estimation of the background due to inelastically scattered photoemitted valance band electrons in Ag (100) using APECS¹ S. KALASKAR, Univ of Texas Arlington, S.L. HULBERT, Brookhaven National Lab, B.R. BARTYNSKI, Rutgers University, A.H. WEISS, Univ of Texas Arlington — Auger Photoelectron Coincidence Spectroscopy (APECS) was used to investigate the Low Energy tail (LET) region of the Auger spectrum of Ag(100) sample. The measurements were carried out at the National Synchrotron Light Source, Brookhaven National Lab, and the spectrum shows a NVV transition related to Ag 4p excitation consisting of a Auger peak accompanied by a substantial low energy region. The fixed energy analyzer was set to the Ag 4p core peak and the APECS LET contains the decay features of only that core excitation process. The spectra contains background due to true coincidences between photoemitted valence band electrons that undergo inelastic scattering and transfer part of their energy with other valence electrons which exit the sample. A series of measurements made with the fixed analyzer set at energies 150,160,171 and 175eV above the energy of the core level peak were used to obtain and estimate of this background. The spectrum that results from the subtraction of the estimated background contains significant intensity in the LET region indicating the emission related to Ag 4p core excitation

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