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Removing contribution of the inelastically scattered valence band electrons from Ag(100) Auger Photoelectron Coincidence Spectrum<sup>1</sup> PRASAD JOGLEKAR, K SHASTRY, Univ of Texas, Arlington, STEVEN HUL-BERT, NSLS, BNL, ALEX WEISS, Univ of Texas, Arlington — Ag(100) spectrum is obtained using Auger Photoelectron Coincidence Spectroscopic(APECS) technique. In the spectrum the 4p NVV auger peak is accompanied by high intensity at the low energies referred as the low energy tail (LET). A LET has contributions arising from intrinsic as well as extrinsic to the Auger transition. The LET's extrinsic contribution is comprised largely of secondary electron background which includes inelastically scattered photoelectrons, valence band electrons and photo excited valence band electron. The inelastically scattered valence band electrons lose energy due to inelastic scattering and end up in the lower energy part of the spectrum We did a series of APECS measurements to estimate the contribution from the inelastically scattered valence band electron. This contribution was subtracted from the Ag (100) APECS spectrum to obtain a spectrum free of inelastic scattered valance band. Our measurement was the first of its kind and the only one to attempt to remove all the secondary electron background.

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