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Measurement of the Spectral Distribution of Low Energy Electrons emitted as a result of MVV Auger Transition in  $Cu(100)^1$  SUMAN SATYAL, P.V. JOGLEKAR, K. SHASTRY, A.H. WEISS, S.L. HULBERT Auger Photoelectron Coincidence Spectroscopy (APECS) was used to investigate the physics of the Low Energy tail (LET) region of the Auger spectrum of a Cu (100) sample. A beam of 200eV photons was incident on the sample and two Cylindrical Mirror Analyzers (CMA's) were used to select the energy of electrons emitted from the sample. An APECS spectra was obtained with one of the CMA's fixed at the energy 136.25eV, which corresponds to the core photoemission peak. The APECS spectra contains the contributions from electrons excited by the MVV Auger transition plus a background due to true coincidences between photo-emitted valence band electrons that undergo inelastic scattering and transfer part of their energy with other valence electrons. Coincidence measurements were made with the fixed analyzer set at various energies between the core and the valence band. These measurements were used to obtain an estimate of the background due to the inelastically scattered valence band electrons.

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