

Core-Hole Screening Modulation in CO adsorbed on Copper Quantum Wells

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C 1s core-level spectra of CO adsorbed on copper quantum wells grown on an fcc-Co(100) film were investigated. Varying the thickness of copper thin films, an intensity modulation of a well-screened peak in C 1s spectra was observed, which is correlated with an spectral intensity modulation at the Fermi level at normal emission with $h\nu = 83$ eV. This behavior may be explained by the charge transfer from the Fermi level to the π^* antibonding level of CO pushed down below the Fermi level due to core-hole attraction.