

Abstract Submitted  
for the MAR09 Meeting of  
The American Physical Society

**Off gap interface reflectivity of electron waves in Fabry Perot resonators** ARITZ LEONARDO, P.M. ECHENIQUE, E. CHULKOV, F. SCHILLER, J.E. ORTEGA — The interface reflectivity in the MgW(110) metallic quantum well is from line shape analysis of high resolution photo emission. A quick reflectivity drop is found away from projected band of the appropriate symmetry near  $E_f$ , such that the interface overcomes the bulk like quasi particle lifetime as the line broadening mechanism. A nearly free electron model for the W(110) substrate band structure demonstrates coherent wave function scattering is the relevant mechanism determines the interface reflectivity in the resonator.

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Date submitted: 28 Nov 2008

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