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**Quantum size effects induced by barrierless confinement** PATRICIO HÄBERLE, J. FRANCOIS VEYAN, Departamento de Física, Universidad Técnica Federico Santa María — We have measured the thickness dependence of Inverse Photoemission (IPS) intensity in the Ag/Al(100) system. Intensity variations show a smooth dependence as a function of coverage which is interpreted as a layer by layer growth. We have used a two step potential to model the effect of the crystal on the valence electrons at the overlayer. Calculated resonances due to the reflection at the potential step show similar energies as those shown in the experimental data. A refinement of the model, using a corrugated potential for the Ag atoms provides a full description of the experimental coverage dispersion.

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