

Abstract Submitted  
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**Surface, quantum well, and bulk states in Ag films** NATHAN SPEER, UIUC, CHING WEI, Academia Sinica, TOM MILLER, TAI CHIANG, UIUC — Atomically uniform Ag films grown on Si(111) substrates show, in addition to the usual Shockley Surface state, multiple surface states in pockets within the d-band manifold as observed by angle-resolved photoemission spectroscopy. At low coverages, quantum well states are resolved. As the film thickness increases, quantum well states evolve into the bulk band continuum plus separate surface states. The results are compared to a density functional theory calculation.

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