

Abstract Submitted  
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**Electronic Structures of Tungsten (3, 2, 0) and Tungsten (8, 7, 0) Surfaces**<sup>1</sup> ZHUO BAO, Physics Department, University of Oregon, AARON BOSTWICK, ELI ROTENBERG, ALS, LBNL, STEPHEN KEVAN, University of Oregon — The valence-band electronic structures of clean Tungsten (3, 2, 0) surface and Tungsten (8,7,0) surface are investigated by using angular-resolved photoemission techniques. The experiment was performed at Beamline 7.0.1, Advanced Light Source, LBNL. The surface states related spectral features are distinguished by using 4D-volume scan method, and are compared to the observed electronic structural features of Hydrogen covered Tungsten stepped surfaces. Using Nearly Free Electron Model, Tungsten bulk bands and stepped surface bands are analyzed in band shapes and band widths. Bands reshaping due to Hydrogen adsorption and surface atomic layers change transferring are designated.

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