

## Application Note

# Au(111) with DA30-L deflection mode and VUV5k

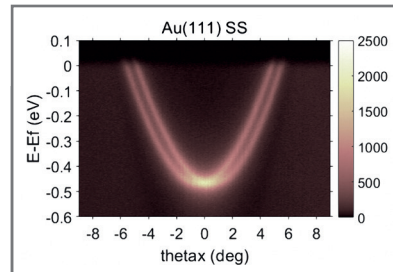
As proof of performance and as part of the characterization of their new DA30-L and VUV5k ARPES system the Prof Bing Wang group of University of Science and Technology of China have measured a Au(111) sample. The data shows a well resolved surface Shockley state with the characteristic spin split parabola. Using the DA30-L deflection mode a full data set was acquired without rotation of the sample. This is illustrated by the graph showing a series of parallel  $k_x$ - $k_y$  cuts in momentum space.

Measurement settings:

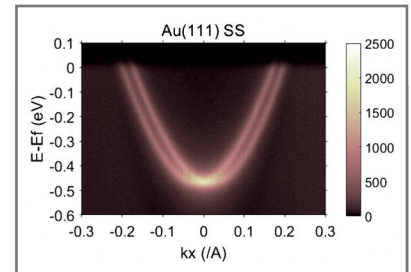
Sample temperature: 90 K  
 Angular mode: DA14L-01  
 Analyser slit: 400  
 Analyser pass energy: 5eV

Data courtesy:

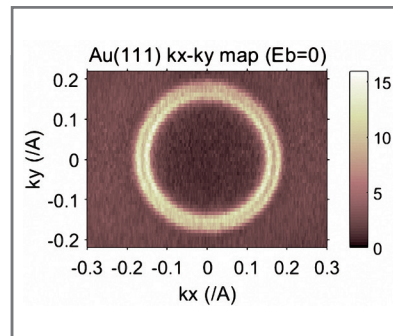
Prof. Bing Wang  
 University of Science and Technology of China.  
 Operator: Xiaochuan Ma (maxc@mail.ustc.edu.cn)



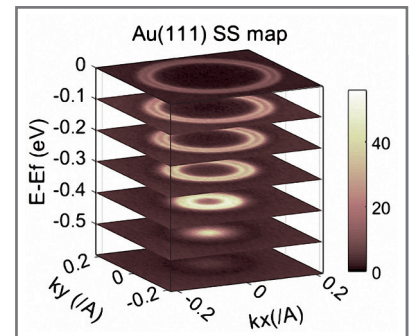
A. Au(111) Surface state:  $\theta_x$  cut. Swept mode acquisition.



B. Au(111) surface state:  $k_x$  cut. Swept mode acquisition.



C. Au(111)  $k_x$ - $k_y$  map at  $E_b=0$ . Fixed mode, deflection mode acquisition.



D. Au(111) surface state map. Fixed mode, deflector mode acquisition.

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