

硬X線光電子分光

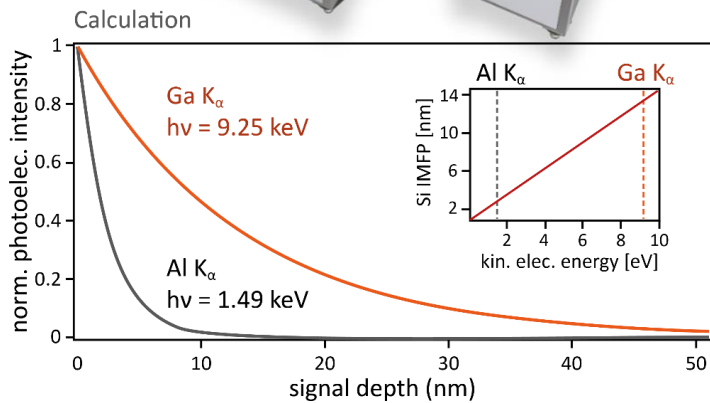
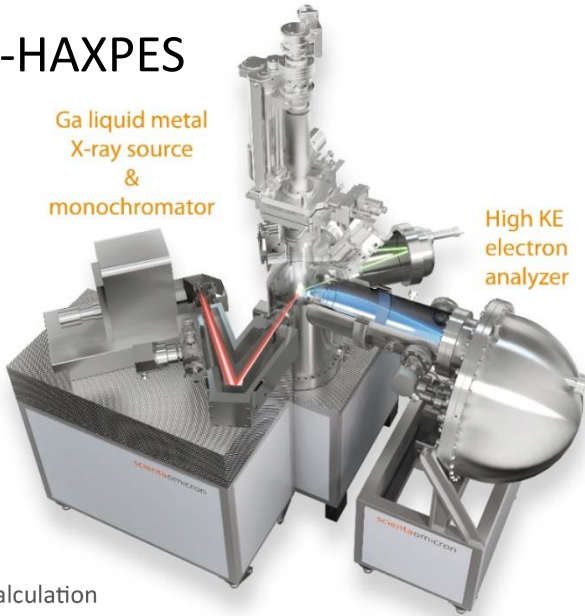


Lab-HAXPES, HAXPES (with SR)

Lab-HAXPES

Ga liquid metal X-ray source & monochromator

High KE electron analyzer



First results

The first results with the HAXPES-Lab prototype system have been acquired on Au and Si samples to show the capabilities of the new product. The Au 3d spectrum in Figure 4 took 25 minutes to acquire. In figure 5 a Si1s spectrum is displayed where both surface and bulk features are visible.

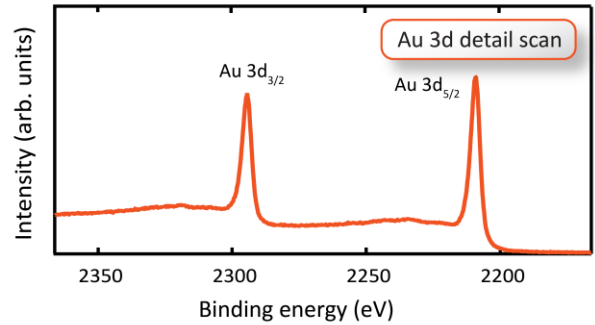


Figure 4. Au 3d spectrum acquired in 25 minutes with kinetic energies around 7 keV.

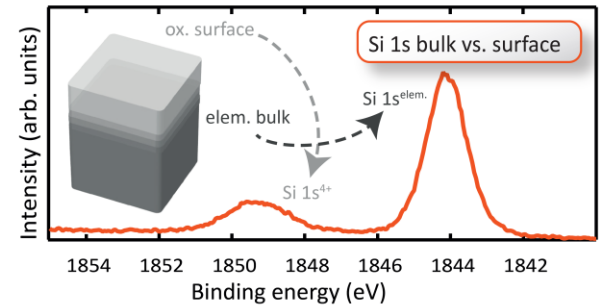
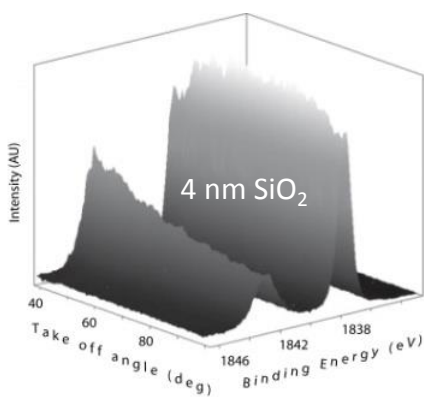


Figure 5. Si 1s spectrum on an oxidized silicon wafer where both the surface and bulk contributions are clearly visible.

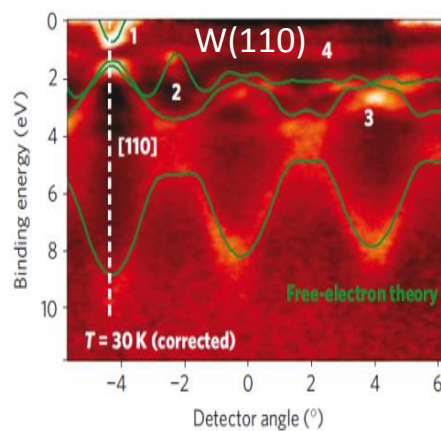
HAXPES (with SR)

Depth profiling



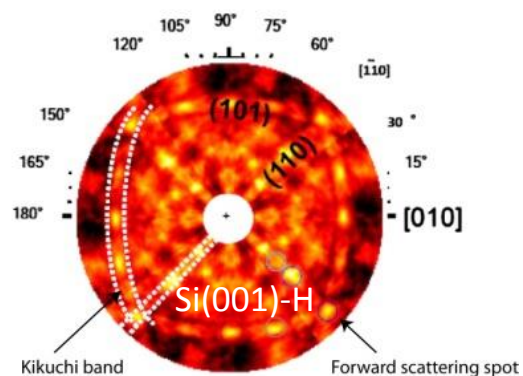
Data Courtesy:
K. Kobayashi, *Priv. comm.*

Band structure measurements



Data Courtesy:
Gray et al. *Nature materials*, 10 (2011) 759

X-ray Photoelectron Diffraction



Data Courtesy:
K. Kobayashi, *Priv. comm.*