

Kratos AXIS Ultra X-Ray Photoelectron Spectrometry

Instructions

Calibration (Do not load sample)

1. In Manager, open→Windows→Real-time display→Manual control
2. In manual control window, Stage→Calibrate→Confirm

Sample loading

1. Mount sample on the sample holder. Make sure the sample height is less than 5 mm measured from the top of the holder.
2. Load the sample holder and latch the chamber door.
3. Turn on the turbo pump (green switch). Wait for ~20 mins. (Gauge#2 should be less than 5×10^{-6} Torr.)
4. Turn the exchange chamber valve (black valve) counter-clock-wise. Wait another 15 mins until gauge#2 < 5×10^{-7} Torr.
5. In “manual control” window, go to vacuum→Open STC-SAC valve→Stage→Bar load→Click “Manual” button
6. Use the grey knob to insert the sample bar.
7. Use the control pad to move bar to the left.
8. Retract the sample exchange rod.
9. Close the black valve manually.
10. Close STC-SAC valve in “manual control” window.

Data acquisition

Vision Manager – control of XPS

1. Move the sample stage in Z direction to bring the laser spot in the center.
2. Turn on X-ray source.

Data Analysis

Processing – data analysis

XPS shut down

1. Turn off X-ray source.
2. Go to bar unload position.
3. Open STC-SAC valve. (Hit manual button first)
4. Open the exchange chamber valve (black valve).
5. Insert sample exchange rod.
6. Move the sample bar to the fork (Moving right)
7. Retract rod.
8. Close STC-SAC valve and the exchange chamber valve.
9. Turn off turbo pump.
10. Vent the exchange chamber.