

X-RAY PHOTOELECTRON SPECTROSCOPY (XPS)

MANUFACTURER : Physical Electronics

MODEL : Quantera II

Analysis

- Scanning XPS microprobe (spot size < 7.5µm)
- Quantitative elemental and chemical state information of the first atomic layers of a surface
- High sensitivity large and micro-area spectroscopy
- XPS Imaging
- Depth profiling
- Angle dependent profiles
- Insulating or conductive samples

Applications

- This instrument is particularly well suited for surface analysis of small size structures due to its high sensitivity, its positioning accuracy and its minimum beam size less than 7.5 µm

Characteristics

- Monochromatic Scanning X-ray Source (Aluminum)
- X-ray spot size programmable between 7.5µm and 300µm
- High positioning accuracy from X-ray induced secondary electron image
- Sample size 75mm x 75mm x 25mm or 100 mm round (4 inch wafer)
- Large travel 5 axis precision sample stage
- Spherical capacitor energy analyzer with multi-channel detection
- Dual beam charge compensation
- High performance low voltage Argon sputter ion gun ($\geq 5.0 \mu\text{A}$ @ 5 kV)
- Ultra-high vacuum analytical chamber (System vacuum $\leq 6.7 \times 10^{-8}$ Pa)