



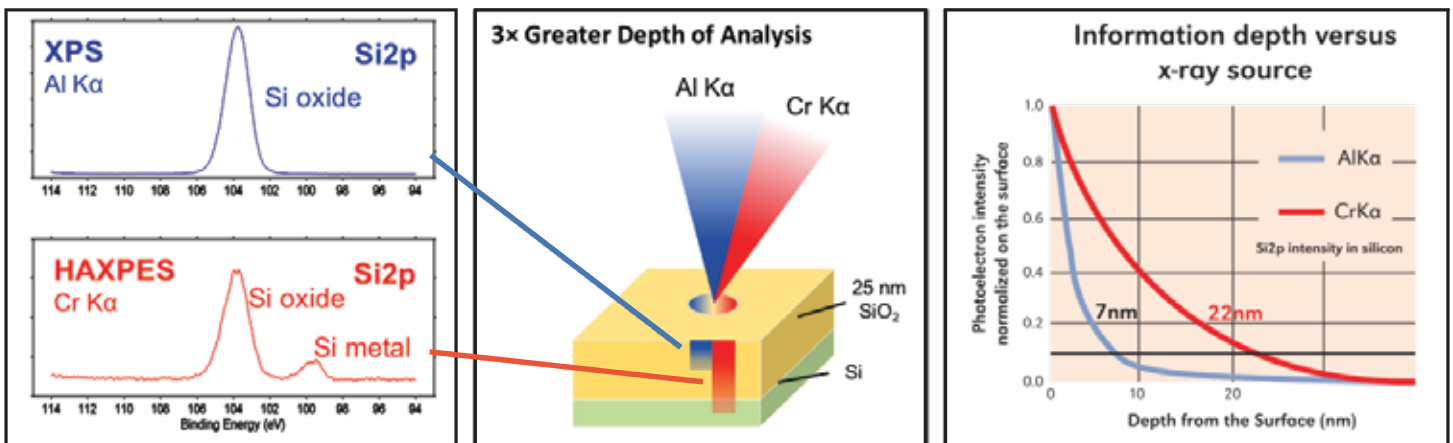
# PHI *Quantes*

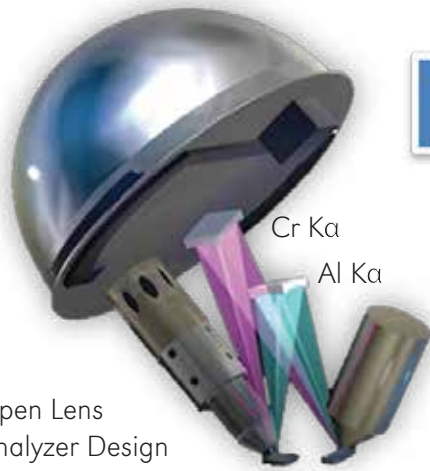
XPS/HAXPES Scanning Microprobe



- Patented XPS/HAXPES scanning microprobe technology
- In-situ analysis using soft (XPS) and hard (HAXPES) X-rays
- Cr X-rays offer 3x greater analysis depth vs. Al X-rays
- Cr X-rays offer access to higher energy core photoelectron peaks
- Patented dual beam charge neutralization for insulator analysis
- High performance spectroscopy and sputter depth profiling
- Fully integrated, high throughput surface analysis

25nm SiO<sub>2</sub> Film on Si Substrate





Al K $\alpha$  = 1486.6 eV  
Cr K $\alpha$  = 5414.9 eV



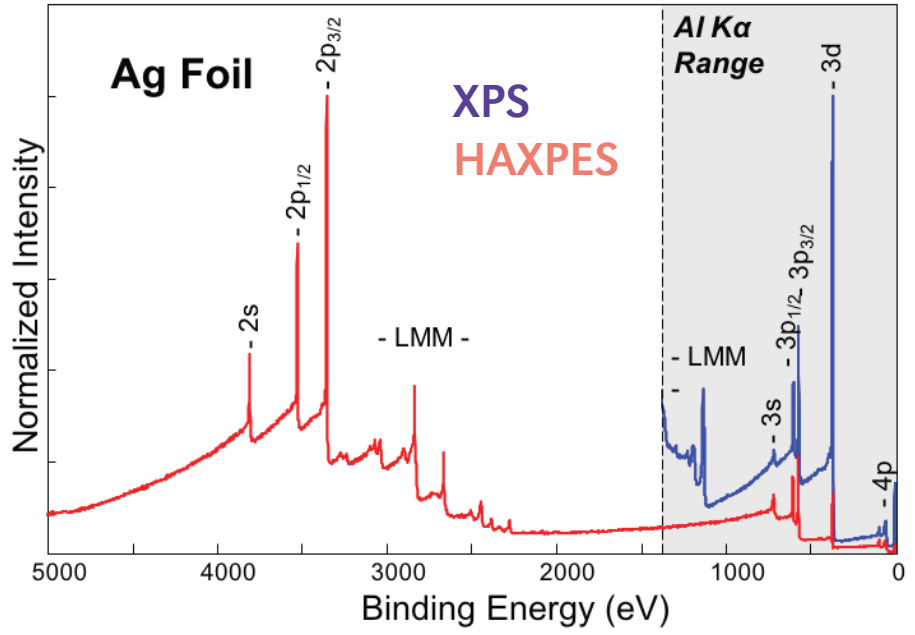
**PHYSICAL ELECTRONICS**  
A DIVISION OF ULVAC-PHI

LaB<sub>6</sub> Scanning Electron Source

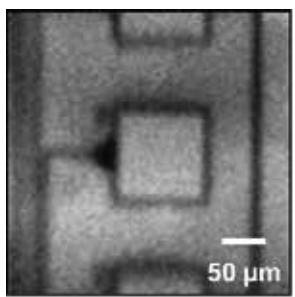
Open Lens Analyzer Design

Automated Dual Anode

Access to Deeper Core Photoelectron Peaks



Secondary Electron Imaging with Scanning X-rays (SXI)



SmartSoft™ Instrument Control with Intuitive and Simple Workflow

