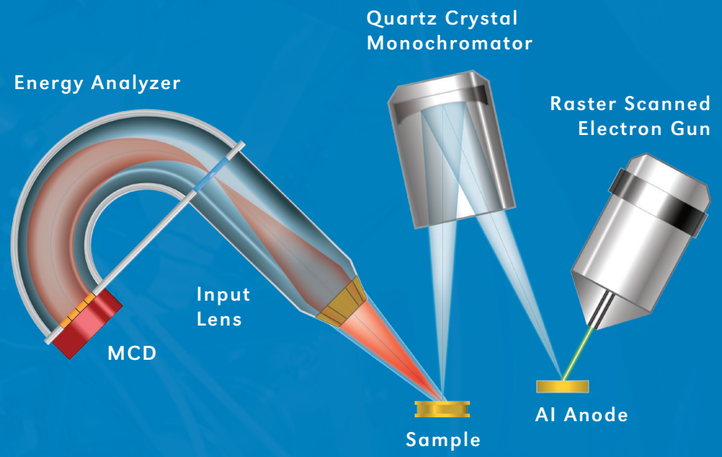
PHI's Patented Scanning XPS Microprobe Technology



The electron gun projects a focused raster scanned electron beam onto the aluminum (Al) anode generating a point source of Al x-rays. The ellipsoidal shaped quartz crystal monochromator refocuses the x-ray beam onto the sample. This unique x-ray source provides a micro-focused, raster scanned x-ray beam that enables x-ray induced secondary electron imaging, XPS analysis, and XPS imaging.

- US Patent 5,315,113
- US Patent 5,444,242
- JP Patent 3752252B2
- JP Patent 3754696B2
- EP Patent 0590308B1
- EP Patent 0669635B1
- EP Patent 1220280B1

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Introducing the

PHI *X-tool*

Automated XPS Microprobe

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

The new PHI *X-tool*

High Performance and Ultimate Ease-of-Use

Automatic Analysis

The PHI *X-tool* is the newest member of PHI's suite of XPS instruments that also includes the PHI *Quantera II* and PHI *VersaProbe II*. The *X-tool* is designed to make XPS instrumentation accessible to a larger audience. An intuitive touch screen user interface, automatic sample loading, automatic analysis, and automatic report generation removes the requirement to be a surface analysis expert to perform XPS measurements.

Based on PHI's patented scanning XPS microprobe technology, the *X-tool* makes it possible for it's users to perform routine small and large area XPS measurements in three easy steps.

In the automatic mode of operation a turnkey recipe driven analysis capability for repetitive analysis tasks or product monitoring is provided.

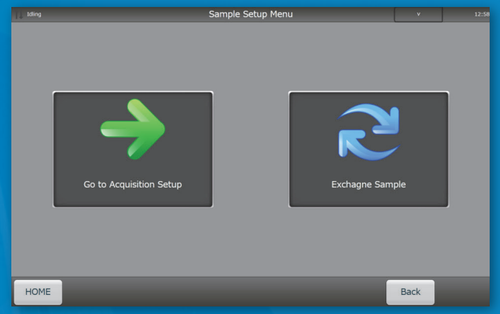
In the interactive mode of operation the user can define analysis conditions and guide an interactive research or failure analysis oriented analysis session. Analysis capabilities include: small and large area spectroscopy, XPS mapping, and sputter depth profiling. An internal optical microscope and x-ray beam induced secondary electron imaging are available to guide the selection of areas for analysis.

Whether data is collected in the automatic mode or the interactive mode of operation, automatic report generation capability is available.

Automatic Report Generation

- PHI's Scanning XPS Microprobe Technology
- Revolutionary Ease-of-Use
- Automatic Analysis and Report Generation

1. LOAD THE SAMPLES



2. SELECT A RECIPE

3. SELECT ANALYSIS AREAS

4. START ANALYSIS