

Thermo Scientific XPS Products for Surface Analysis



X-ray photoelectron spectroscopy (XPS) products provide quantitative chemical analysis of solid surfaces and thin films.

We offer a wide range of XPS products and components to cover all surface analysis requirements and application areas.

Thermo Scientific Products

As a world leader in analytical instruments, our instrument solutions enable our customers to make the world a healthier, cleaner and safer place. Our Life and Laboratory Sciences segment provides analytical instruments, scientific equipment, services and software solutions for life science, drug discovery, clinical, environmental and industrial laboratories. Our Measurement and Control segment is dedicated to providing analytical instruments used in a variety of manufacturing processes and in-the-field applications.

Surface Analysis

We manufacture a range of XPS products and components for surface, ultra-thin film and thin film analysis. On our multi-technique instruments we also offer:

- Auger Electron Spectroscopy (AES)
- Ultraviolet Photoelectron Spectroscopy (UPS)
- Ion Scattering Spectroscopy (ISS)
- Reflection Electron Energy Loss Spectroscopy (REELS)

We can also supply a range of sample preparation options.



Thermo Scientific ESCALAB 250Xi

ESCALAB 250Xi is a high-performance, multi-technique XPS instrument.

- Quantitative spectral imaging
- Fast parallel imaging < 3 μm
- Signature-free imaging detector
- Sub-6 μm spectroscopy
- Best in class sensitivity and energy resolution
- Microfocused monochromator
- Auto-tuning high flux ion profiling source
- Sample preparation options

Thermo Scientific K-Alpha

K-Alpha is a high-performance small-spot XPS instrument with a small footprint.

- Full automation of acquisition, processing and reporting of sample data
- Advanced optics for rapid and accurate feature alignment
- Microfocusing monochromator for high sensitivity small area analysis
- Multi-sample, unattended operation for maximized throughput
- Excellent depth profiling capabilities
- Low cost of ownership



Thermo Scientific Theta Probe

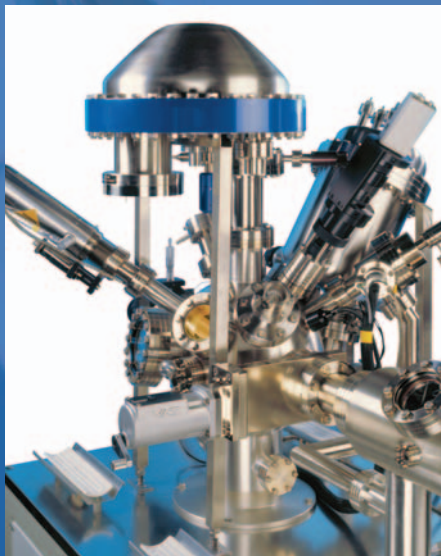
Theta Probe is a small-spot XPS instrument capable of producing angle-resolved XPS data without tilting the sample.

- Small spot XPS using a microfocus monochromator for fast analysis down to 15 μm
- Large sample handling up to 70 mm x 70 mm with a thickness up to 25 mm.
- Automated stage for multi-sample, unattended operation
- Accurate sample alignment, even for small area analysis
- Parallel ARXPS for ultra-thin film characterization without tilting the sample
- Comprehensive suite of ARXPS software

Thermo Scientific MultiLab 2000

MultiLab 2000 is a versatile, multi-technique XPS instrument.

- Modular construction to maximize versatility
- Upgradeable with additional analytical techniques
- Expandable with a wide variety of sample preparation methods



Components for Surface Analysis

In addition to complete systems, we offer surface analysis components for techniques such as XPS, ARXPS, AES, SAM, UPS and ISS. These include:

- Alpha 110 energy analyzer
- XR3 Twin anode X-ray source
- XR5 Microfocused X-ray Monochromator
- UVL High intensity ultra violet source
- FEG1000 Field-emission electron gun
- EX05 high-performance ion gun for depth profiling and sample cleaning
- EX03 broad beam ion gun for sample cleaning



Upgrades to XPS Systems

Improve the performance of your existing XPS instrument

Upgrade your ESCALAB with new electronics to allow digital control from the advanced *Avantage* data system. Upgrades are available for the full range of ESCALAB models.

A wide range of upgrades are available please contact us for details.

Thermo Scientific Avantage Data System

All of our instruments and components are controlled using the acclaimed *Avantage* data system. *Avantage* is fully integrated and can provide:

- Instrument control
- Data acquisition
- Advanced data processing
- Reporting



In addition to these offices, Thermo Fisher Scientific maintains a network of representative organizations throughout the world.

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