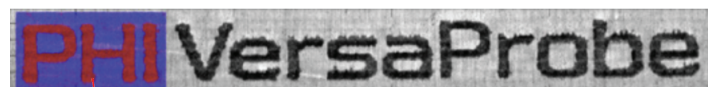


VersaProbe I to VersaProbe Hybrid UPGRADE

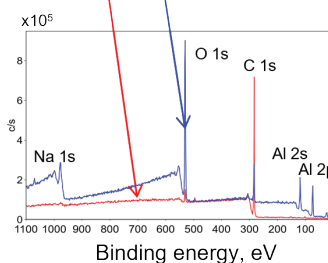
The VersaProbe II has been a large success much like the first-generation VersaProbe I. The upgrade package removes a large part of the analog electronics to modernize many software and hardware features of the VersaProbe II. Listed are the key features and changes gained from the upgrade:

SmartSoft Key Features

- Simplified user interface & analysis workflow for occasional users and enhanced flexibility for expert users
- Intuitive queue editor for improved automation & throughput
- Point-and-Click in both intro photograph and scanning X-ray image (SXI)
- Real-time system status dashboard during acquisition
- Software-controlled X-ray beam and ion beam auto-tuning & analyzer calibration
- Multilevel system status logging and password protection for critical system parameters
- Automated chemical mapping and mosaic via SmartMosaic

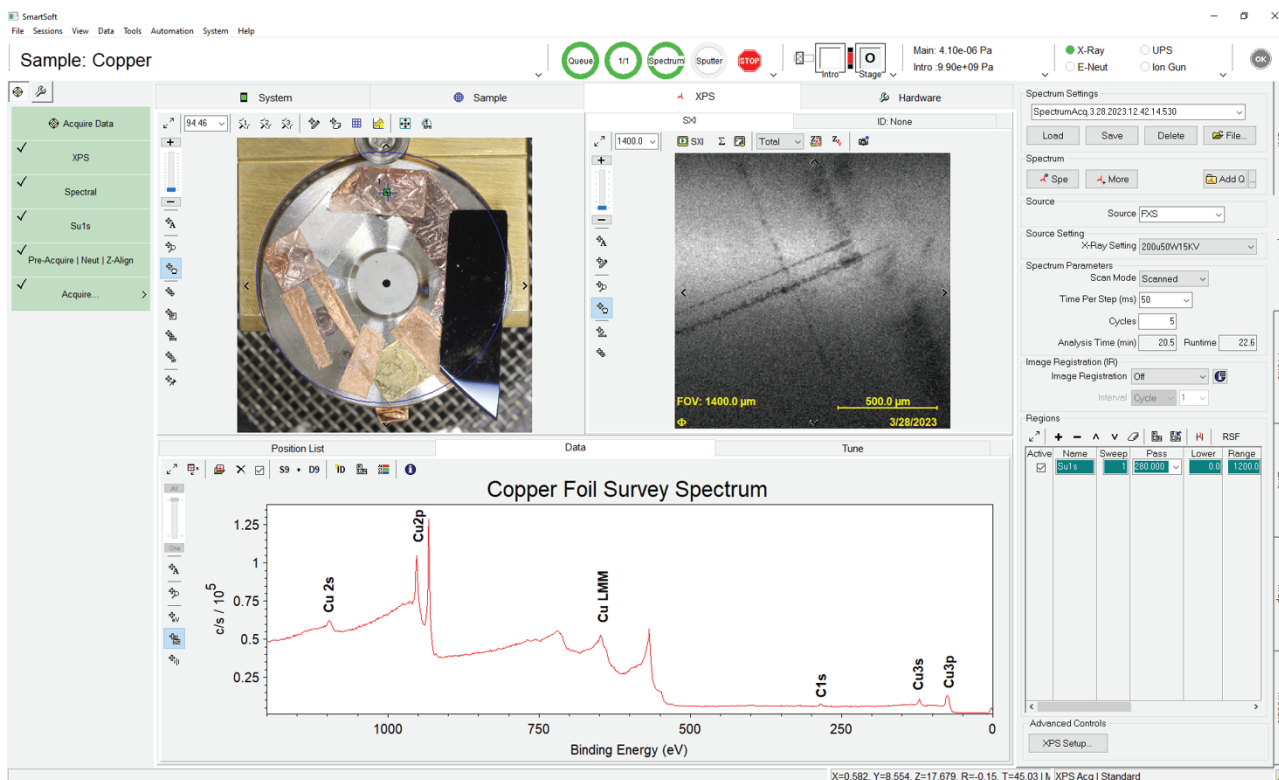


~ 25 x 3 mm SXI mosaic image overlaid with ~ 5 x 3 mm C1s (red), Al 2p (blue) mosaic of chemical maps



~ 2.7 mm x 1.4 mm Ti 2p (red) and 5.5 x 1.4 mm Si 2p (blue) chemical map overlaid with SXI image

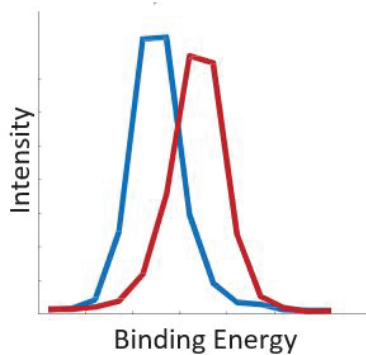
New SmartSoft Software



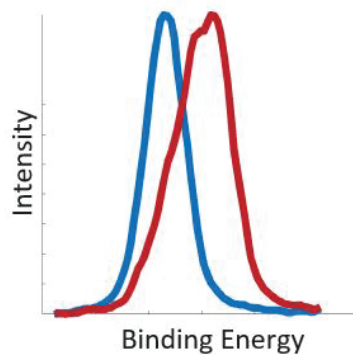
The screenshot displays the SmartSoft software interface for a Copper foil analysis. The main window shows a 'Copper Foil Survey Spectrum' with peaks labeled for Cu 2s, Cu 2p, Cu LMM, C 1s, Cu 3s, and Cu 3p. The y-axis is intensity in counts per second (c/s) x 10⁵, and the x-axis is binding energy in eV. The interface includes a 'Sample: Copper' header, a 'System' status bar, and a 'Hardware' section. The 'SXI' (Scanning X-ray Image) panel shows a live image of the sample with a 1400.0 μm field of view. The 'Spectrum Settings' panel on the right shows parameters for the acquisition, including source (FXS), X-ray setting (200.50W15KV), scan mode (Scanned), and analysis time (20.5 min). The 'Regions' panel at the bottom right shows active regions for SUs, Pass, and Range.

Performance Changes

- 128-channel detection provides excellent chemical state mapping capability improves depth profiling capabilities
- New electronics - Improved system/electronics overhead to increase speed
- ~ 5x improvement in switching ion gun setting resulting in time saving during depth profiling
- Service and acquisition diagnostics are markedly improved with electronics/software system status and error reporting
- New USB electronic design



16-Channel Detector
VersaProbe I

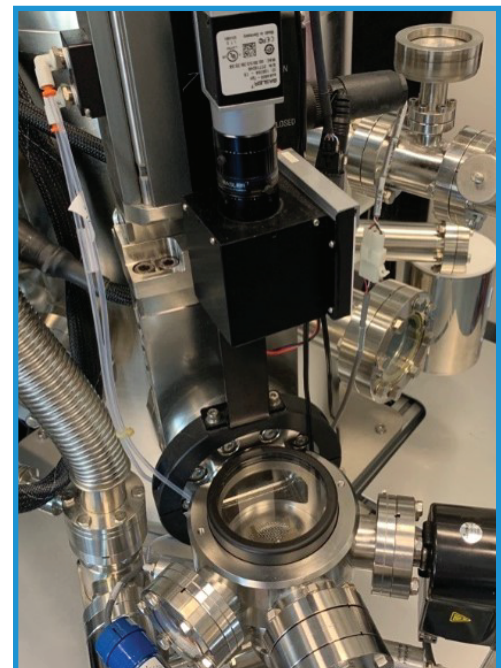


128-Channel Detector
VersaProbe II

In one shot, without scanning the analyzer, 128 channels of data allows the user to more easily recognize chemical information. This capability improves data quality and can be achieved in a fraction of the time.

Upgrade Details

- *VersaProbe I* card racks removed and replaced with *VersaProbe II* style electronics
- New intro camera and necessary brackets installed
- New state-of-the-art Windows 10 computer
- Latest version of *SmartSoft*
- Latest version of *MultiPak*
- CE-compliant
- Sample holders will not change
- Image Registration compatible
- System age reset with reduced cost of service contract
- Enables upgrade to all new options, LEIPS, UPS, REELS



New Intro Camera