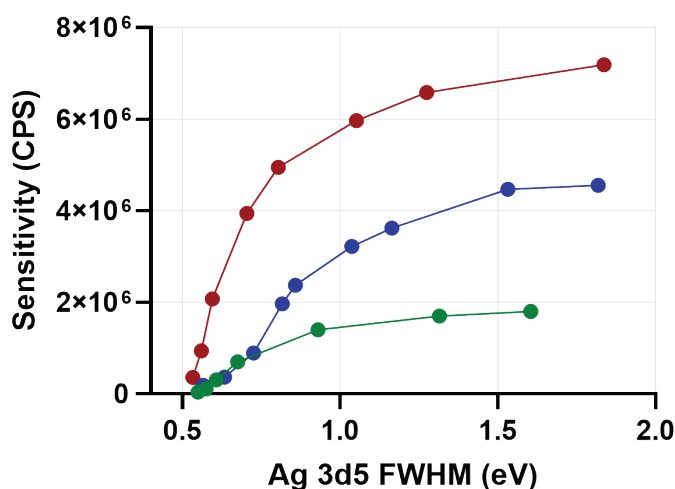


VersaProbe III AD UPGRADE



- A new 180° hemispherical electron energy analyzer optimized for energy resolution and PHI's new enhanced angular acceptance lens for high sensitivity in both large area analyses, providing improved sensitivity of ~5x in all acquisition models.
- Manually controlled analyzer aperture +/-5° angular acceptance for Angle Dependent XPS studies.

- *SmartSoft-VersaProbe* software (Microsoft Windows 10 compatible) with improved queuing for advanced automated analyses and user-friendly dashboard for efficient windows management.
- Enhanced, multi-channel detector and electronics for faster data acquisition and maximum sensitivity for both scanned and up to 128 channel unscanned data acquisition modes.



*Large area sensitivity on Ag 3d5/2 of VP III AD (red) compared to VP III (blue) and VP II (green)

*An upgrade will reset age of instrument, and reduce service contract price for instruments manufactured more than five years before the upgrade.

X-ray Size	VP III AD Energy Res, Counts
10 μm	≤ 0.6 eV, ≥ 25 kcps ≤ 1.0 eV, ≥ 55 kcps
20 μm	≤ 0.6 eV, ≥ 100 kcps ≤ 1.0 eV, ≥ 200 kcps
Large area	≤ 0.6 eV, ≥ 1.5 Mcps ≤ 1.0 eV, ≥ 5.0 Mcps
Technique	VP III AD, sensitivity and resolution
AES	1.6 Mcps, @ 0.1%
Technique	VP III AD, sensitivity and resolution
UPS	≥3 Mcps for Ag 4d, ≤100 meV Fermi edge width

*The VP III AD performance can be achieved only if the VP II meets the original specifications for count rate and resolution.

**UPS performance for Ulvac-PHI source