

# Xb

**POWERFUL TECHNIQUE,  
QUICKLY ANALYZE,  
RESULTS IN SECONDS**



# Xb

The Xb custom x-ray source is designed exclusively for use on electron microscopes. The compact design, and slide mounting allow very close coupling to the sample. Patented polycapillary optics focus x-ray excitation down to sample spot size as small as 10 $\mu$ . The Xb is offered in 10 $\mu$ m and 40 $\mu$ m spot sizes. The integrated high-voltage power supply operates up to a maximum power of 50 watts (35-50 kV and 1.0 mA depending on anode material). The close coupling provides XRF analytical results comparable to those from traditional "tabletop" or "standalone" units. The Xb is designed so that it does not interfere with the normal operation of the electron microscope, including the use of the electron beam on the same sample, at the same time collecting all elements simultaneously. No special cooling is required.

## But why?

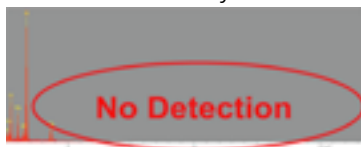
Electron beams (from scanning electron microscopes) produce very high backgrounds hiding the trace elements in the sample. X-rays, from a true "x-ray" source don't have this effect. Using the Xb low ppm levels of elements can be easily identified, quantified, and even producing trace level x-ray maps to view elemental distribution of trace elements in your sample.

## Xb TECHNICAL SPECIFICATIONS

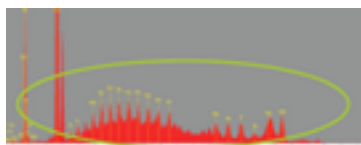
<b>Anode Type</b>	Side-window
<b>Target Material</b>	Ag, Cu, Mo, Rh & W
<b>Accelerating Voltage</b>	0-50kV
<b>Beam Current</b>	Max 1mA
<b>Excitation Spot Size</b>	10, 20, 40 $\mu$ m
<b>Collimator Size</b>	Patented Polycapillary Focusing Optic
<b>Source Filters</b>	Available upon request
<b>Cooling Requirements</b>	Fan cooled for power > 100watts
<b>Controls/Safety</b>	Variable control kV/ $\mu$ A, X-ray on/off buttons, kV/ $\mu$ A display, internal interlocked shutter. Interlocked to SEM, keyed power-on switch, HV-On lamp, warning beacon

### INCREASE DETECTION

EDS Only

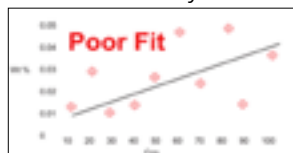


With SEM-XRF

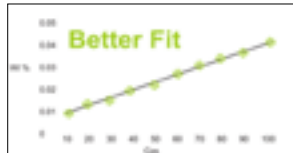


### IMPROVE ACCURACY

EDS Only



With SEM-XRF

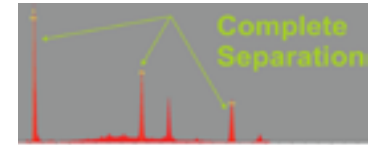


### SEPARATE PEAK OVERLAPS

EDS Only



With SEM-XRF



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