

## Axon™ Technology: A Revolution in X-ray Fluorescence

Olympus' new Axon™ technology features enhanced XRF signal processing for accurate, repeatable test results. Axon technology's use of proprietary ultra-low-noise electronics pushes the boundaries of X-ray detector performance, resulting in higher X-ray counts per second and faster, more reliable results. Analyzers powered by Axon technology give confidence to the user by delivering the ultimate test-to-test and instrument-to-instrument repeatability. Experience the difference that Axon technology makes.

### Higher X-ray count rates

Higher X-ray count rates translate to faster test results, better precision, and lower limits of detection. Optimizing one detector parameter (such as peaking time or count rate) typically results in significant deterioration of other parameters (such as resolution). Axon technology minimizes this challenge; Vanta analyzers are set up to process more X-ray counts for faster and more precise results.

### Ultra-low electrical noise design

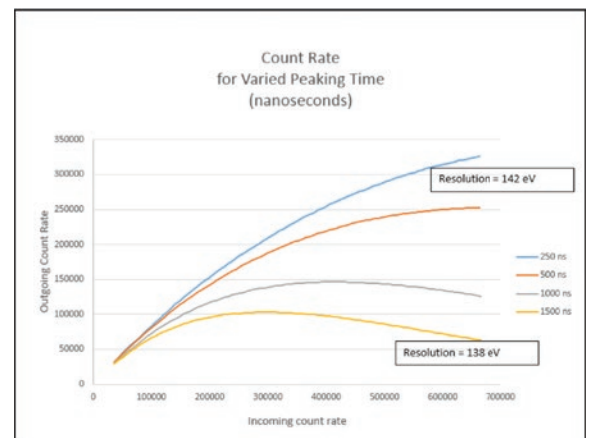
Even with shorter peaking times, Axon technology delivers a breakthrough in resolution that is better than other XRF analyzers—resolution approaching fundamental theoretical limits. This outstanding resolution enables our devices to clearly separate crowded spectral peaks. This feature is important for the quantification of light elements for alloy or for geochemical samples and precious metals that were difficult to measure before the introduction of Axon technology.

### Automatic energy scale calibration method doesn't require a calibration sample

Many XRF analyzers only check the energy scale at startup and/or periodically through the use of an internal or external sample. With Axon technology, the analyzer automatically checks the energy scale in microseconds before every test so you can trust your results every single time. The stable energy scale provided by this check enables repeatable results, meaning you get the same answer when you first turn on the analyzer as you do on your 500<sup>th</sup> test on a hot day. Axon technology limits the drift of analytical results as the analyzer or ambient temperature varies, a problem many handheld XRF devices suffer from.

### Patent pending reset scheme enables higher throughput and lower detector dead time

Axon technology's innovation enables the analyzer to count more of the X-rays that the detector encounters, a capability that is unavailable on most other XRF analyzers. Proprietary processing algorithms mean that pileup counts (a phenomenon when two or more X-rays hit the detector at the same time) are discarded faster, so the analyzer is ready for the next X-ray, maximizing the efficiency of the detector.



The graph illustrates that Axon technology delivers outstanding resolution even as peaking time gets shorter and count rate gets higher. More X-ray counts translate to more precise and repeatable results.

Experience the difference Axon technology makes. For more information, contact your local sales representative or visit: [www.olympus-ims.com/vanta](http://www.olympus-ims.com/vanta)