

OPTIMIZING X-RAY SMALL COMPACT X-RAY SOURCES FOR HANDHELD XRF

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Moxtek is a manufacturer of x-ray sources for both handheld and bench-top XRF instruments. In handheld XRF there are many functional characteristics which are desired by manufacturers. We will present on several optimizations requested by customers, and show the present capabilities of Moxtek sources. One optimization is making x-ray sources which are spectroscopically identical. In other words, if you switch out a source in an instrument, the new source will give you the same spectra as the old source with minimal recalibration of the instrument. We will demonstrate that Moxtek's handheld x-ray sources are spectroscopically identical for several XRF applications. Another optimization desired is shorter acquisition times on the order of a few seconds. Some of the desire for shorter acquisition timing is driven by handheld LIBS devices that have about a 1 second scan time. We will present information on how fast spectra can be taken with our handheld sources that are close to matching short time frame sampling rates similar to LIBS instruments.