

Bridging the Price / Performance Gap between Silicon Drift and Silicon PIN Diode Detectors

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Use of silicon drift detectors continues to increase as new XRF applications drive performance improvements beyond existing silicon PIN detector capability for new XRF instrumentation. Recent developments in Si-PIN detectors result in significantly increased performance. We will describe the improvements in spectral resolution, count rate capability, peak to background, and detection limit improvements in MOXTEK silicon PIN diode detectors. These improvements result in detectors that, in some applications, offer an attractive alternative to silicon drift detectors at a reduced cost. This improvement bridges the price/performance gap between existing silicon PIN detector capability and the SDD.