



XFlash[®] 5010 - The ultimate resolution SDD Detector

Bruker AXS Microanalysis proudly presents XFlash[®] 5010, the LN₂-free silicon drift detector (SDD) for high resolution X-ray spectroscopy and microanalysis. The XFlash[®] 5010's performance and reliability is clearly superior to any other semiconductor X-ray detector available today. This detector features an optimized electron trap, which allows interference-free analysis even at low excitation energies.

The new XFlash[®] 5010 provides an even better energy resolution than its predecessors. It displays 123 eV (Mn K α) at count rates of a few thousand cps and at more than 100,000 cps as well.

The special design of the SDD chip with integrated field effect transistor (FET) and the low capacitance of the small read-out anode in particular enable the XFlash[®] 5010 to count X-rays much faster than any other detector of comparable energy resolution. This results in an unmatched count rate capability of up to 750,000 cps, providing the user with the opportunity of performing high-speed



analyses. Applications include fast mapping, HyperMap (Spectral Imaging/PTS) and real-time spectrometry.

The XFlash[®] 5010 does not require liquid nitrogen for cooling. It is operated at temperatures around -25°C, which are easily achieved using a simple Peltier cooler without the need for additional cooling agents. This makes it possible to use the detector within seconds after it is switched on. It also guarantees absolutely vibration-free operation, avoiding any disturbance at the SEM. The XFlash[®] 5010 works virtually maintenance-free.

Compared to currently available alternatives, the unique XFlash[®] 5010 provides the user with an unprecedented combination of higher productivity, higher sensitivity, higher operational efficiency and lower cost of ownership. For detailed information please contact your local Bruker representative or visit our web site: www.bruker-axs-microanalysis.com.

Technical Data

Energy resolution of 123 eV (Mn K α) guaranteed at 100,000 cps,
46 eV C K α , 54 eV F K α (in compliance with ISO 15632 : 2002)
stable over whole OCR range

Detection from beryllium (4) to americium (95)

Maximum pulse load 750,000 cps

Active area of 10 mm²

Optimized electron trap for interference-free analysis in the low energy range

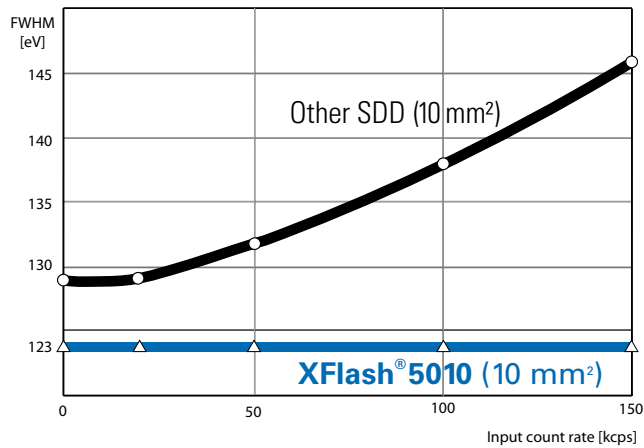
Peltier cooling (no liquid nitrogen or other cooling agents required)

Due to compact design, low weight and vibration-free cooling method no image distortion at the SEM

Compatible with all microscopes

Comparison XFlash[®] 5010 / other SDD

Typical energy resolution at Mn K α vs. input count rate



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