

EDX Analysis with LN₂-free XFlash Detectors (SDD) at the SEM Light Element Detection and High Speed Applications Some Examples

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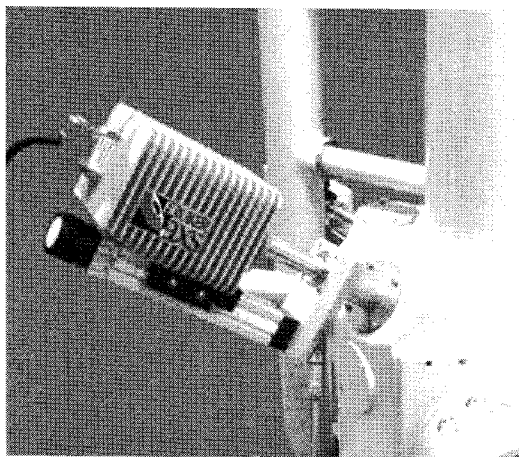
Bruker AXS Microanalysis introduces the fourth generation of SDD-based XFlash Detectors that exceed the performance of the commonly used Si(Li) detector technology currently available in the market. XFlash Detectors offer an unmatched energy resolution of 125 eV at MnK α resulting at excellent light element performance (e.g. 48 eV at Carbon). A state-of-the-art atomic database includes many new L- and M-lines enabling most precise, reproducible and convenient results for element ID /quantification.

XFlash Detectors are capable of reducing the analysis time up to one tenth thus featuring new analysis options. Previously many high speed applications were not practical because of long acquisition times now real-time spectrometry, instant element mapping, ColorScan or PTS Hypermapping have become standard EDX options that open a broader range of tools for the analyst. A 60 minutes Si(Li) map for example can now be acquired within 6 minutes.

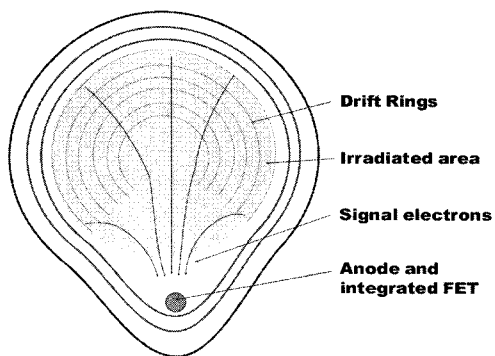
XFlash detectors do not require liquid nitrogen for operation and do not cause any vibration at the SEM resulting in distortion-free images. They can be attached to any SEM / TEM in the market and are suitable for both W-SEM and FESEMs. They are available with 10, 30 and 40 mm active area.

- [1] P. Lechner, S. Eckbauer, R. Hartmann, R. Richter, L. Str \ddot{u} er, S. Krisch, H. Soltau, D. Hauff, C. Fiorini, E. Gatti, A. Longoni, M. Sampietro Silicon Drift Detectors for high resolution room temperature X-ray spectroscopy NIM A 377 (1996) p.346.
- [2] T. Sch \ddot{u} ein, ICEM 15, 1-6 September, 2003, Durban, South Africa.
- [3] H. Soltau, P. Lechner, A. Liebl, A. Niculae, R. Eckhard, G. Lutz, L. Str \ddot{u} er, C. Fiorini and A. Longoni Silicon drift detectors refined on energy resolution, count rate performance and radiation entrance window EXRS 2006, European

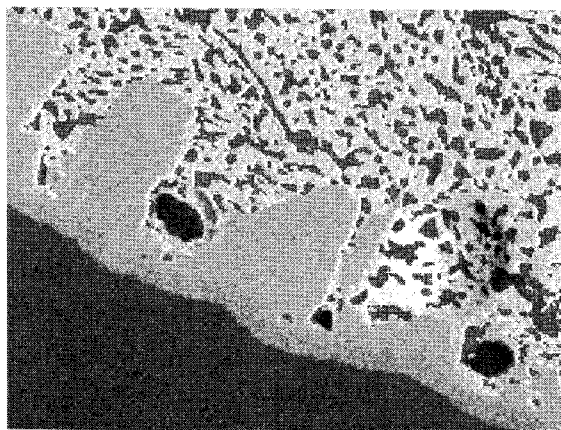
Conference on X-Ray Spectrometry, Paris, 19-23 June, 2006



XFlash@Detector at SEM



SDD Design



10 s element map