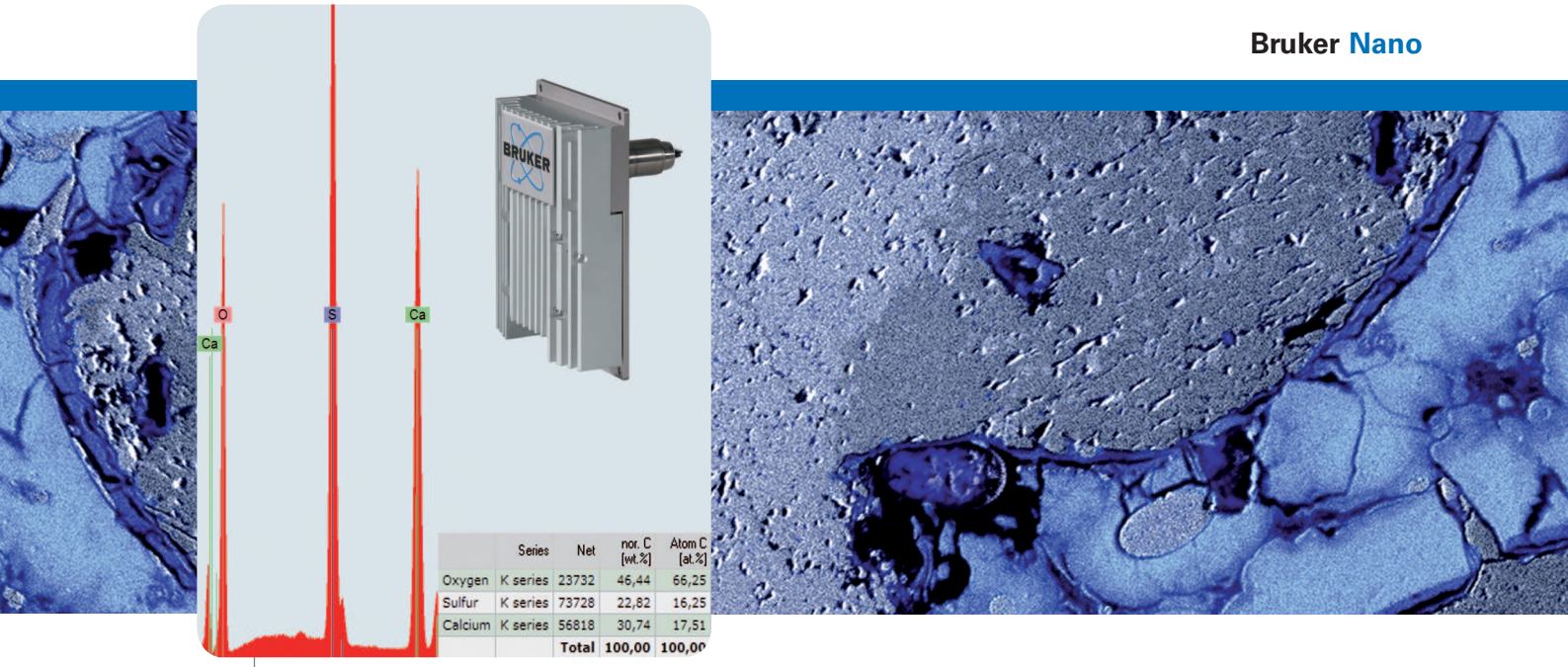
Bruker Nano



	Series	Net	nor. C [wt.%]	Atom C [at.%]
Oxygen	K series	23732	46,44	66,25
Sulfur	K series	73728	22,82	16,25
Calcium	K series	56818	30,74	17,51
		Total	100,00	100,00

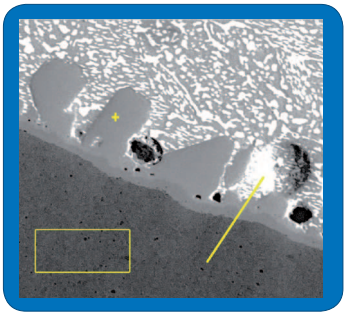
QUANTAX 100

QUANTAX 100 is a compact EDS system for qualitative and quantitative microanalysis at the MiniSEM 1500 / 3000.

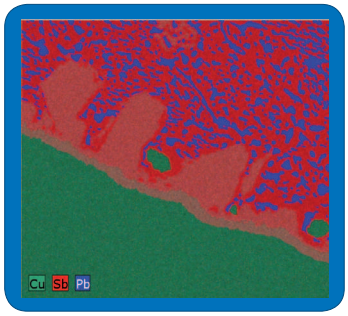
QUANTAX 100 is an accesory to MiniSEM 1500 / 3000 which provides information on the chemical composition of visualized structures. The system analyzes any kind of specimen including rough and flat surfaces, particles and layers. It detects the elements from boron (5) to americium (95) and identifies the elemental concentration within the specimen.

The heart of this system is the light-weight XFlash® Detector 410 H, which was specifically designed for MiniSEM 1500/3000. The XFlash® Detector 410 H is a high-speed silicon drift detector (SDD) with a 133 eV energy resolution that does not need liquid nitrogen or other cooling agents for operation. Unlike other systems the detector does not require tilted specimens for complete, reliable and precise measurements.

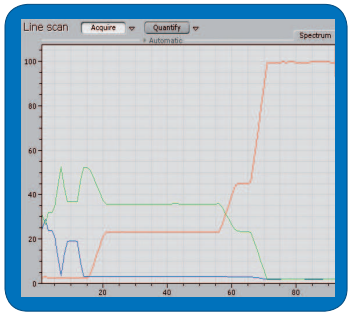
The XFlash® Detector 410 H can be used at all accelerating voltages the MiniSEM provides. The system is well suited for the detection of light elements (boron to sodium). All analyses can be completed within a few seconds.



SE image of a CuPbSn solder. Region of interest (point, line or rectangle) can be easily selected.



Element map shows the distribution of elements in the specimen.



Ultra fast line scan: analysis along a line within 5 seconds.

The system is equipped with the easy-to-use software ESPRIT, which allows beginners to familiarize themselves with the EDS technique quickly. Advanced users can create their own analysis recipes.

ESPRIT runs on the MiniSEM PC/ monitor. A small signal processing unit with fully automatic hardware calibration is included.

QUANTAX 100 for MiniSEM 1500 / 3000 is offered in two configurations:

Basic configuration

- Automatic element identification
- Qualitative analysis in spotlight mode
- Quantitative analysis in spotlight mode
- Quantitative standardless analysis with correction routine for rough samples
- Report generating tool
- Upgrade to advanced configuration possible

Advanced configuration

- Digital image processing
- Element identification of points and objects
- Quantification of points and objects
- Ultra fast element line profile
- Ultra fast digital element mapping
- Report generating tool
- Upgrade with additional options possible

Other suitable options

- Multipoint analysis
- HyperMap / Spectral imaging
- Quantitative analysis with standards
- Correction of beam shift
- Automatic particle analysis
- Automatic phase analysis

Specifications

System

- Detectable elements: boron (5) to americium (95)
- Concentration in % (atomic, weight)
- Excellent light element performance
- Suitable for low and high voltage applications (1-30 kV)
- Works at all MiniSEM magnifications (20x to 30,000x)

XFlash® Detector 410 H

- Silicon Drift Detector (SDD)
- Detectable elements: B to Am
- Energy resolution: ≤ 133 eV (Mn Kα)
- Active area of 10 mm^2
- Weight: 1.3 kg
- Peltier cooling (no LN_2 or other cooling agents required)
- Maintenance and vibration-free operation

Signal Processing Unit

- 110 - 220 V
- Fully software controlled hardware calibration
- Up to 60,000 cps output count rate

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