

## ● QUANTAX 80

QUANTAX 80 is a new EDS system specially designed for the Hitachi FlexSEM1000 Microscope.

QUANTAX 80 consists of a XFlash® silicon drift detector (SDD) with the best energy resolution in its field, a small electronics unit and an easy-to-use ESPRIT Compact software.

The system performs qualitative and quantitative analyses of all materials with an element range from boron (5) to californium (98). Besides composition analysis at individual spots on the sample surface, QUANTAX 80 provides powerful line scan and element mapping functions. With the customized detector, the analysis and reporting is completed within seconds.

QUANTAX 80 features:

- High resolution data acquisition
- Three different analysis modes: Objects, LineScan and Mapping
- Automatic or interactive element identification starting from boron (5)
- Accurate element quantification during acquisition
- Display of quantitative results as atomic, weight or oxide percentage
- Color-coded concentration distributions (element maps) for any number of elements within an arbitrary field of view including a unique live peak separation and background removal
- Report generation and print formatting
- Export of results to MS® Word and Excel
- Language options: English, German, Spanish, French, Russian, Chinese, Japanese...



ESPRIT Compact with mapping (a), report (b), line scan (c), and spectrum (d)

### XFlash® 630H Detector

- Silicon drift detector (SDD)
- 30 mm<sup>2</sup> active area
- Ultra-thin window for detection of all elements starting from boron (B)
- Energy resolution for Mn K $\alpha$   $\leq$  129 eV; energy resolution for Cu K $\alpha$   $\leq$  148 eV
- Peltier-cooled, no liquid nitrogen or other cooling agents needed
- No detector warm-up necessary during venting or sample changing
- Vibration-free operation
- Ambient temperature: 15–30 °C
- Humidity: 70 % RH or less
- Dimensions: 100 x 123 x 105 mm
- Weight: 1.3 kg
- Optimum working distance: 8.5 mm

### SCU Scanning Control Unit

The SCU is a standalone device that includes a signal processing unit (MinSVE) and a scan generator. The SCU is connected to any PC using a standard Ethernet connection.

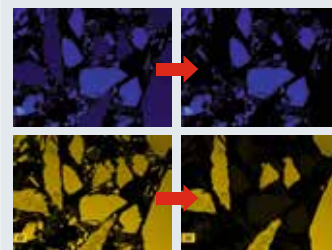
- Power supply: 60–240 VAC, 50/60 Hz

- Power consumption:  $\leq$  50 W (including detector)
- 4096 channels (2.5 eV/channel)
- Up to 60,000 cps output count rate
- Dimensions: 225 x 248 x 151 mm
- Weight: 3.7 kg
- Interface with FlexSEM1000 laptop/PC via GBit Ethernet

### ESPRIT Compact Software

- Automatic and manual peak ID
- True standardless quantification with improved algorithms
- True 64 bit version (32 bit available)
- Maximum image/map resolution: 4096 x 4096 pixels
- Software options:
  - Object mode (including point, rectangle, ellipse and polygon), LineScan, Hypermap, Report (including export to PDF and MS® Word), can read and process all QUANTAX 70 and QUANTAX 75 files
- Free offline data processing
- Win10 compatible
- Low installation and training effort

### Special features



Live deconvolution to separate overlapping elements in the map, here: silicon (top), and tungsten (bottom)



Sum spectrum (gray) of maps above and deconvoluted element peaks for silicon (blue) and tungsten (yellow)



Fully integrated XFlash® detector

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