



M6 JETSTREAM Upgrade

● New Productivity and Protection Options

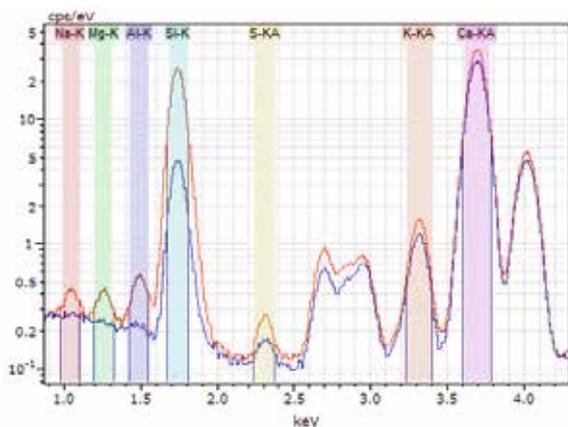
The Bruker M6 JETSTREAM is designed for the non-destructive elemental analysis of large samples. The mobility of the instrument allows it to be placed at the site of the object of interest, such as a gallery, museum or the shop floor. Samples can be scanned either horizontally or vertically. The performance parameters enable scanning areas of up to 800 mm x 600 mm with a variable spot size down to 100 μm and speeds of up to 100 mm/s.

Three new options provide useful, customer driven enhancements in utility, productivity and protection to the M6 JETSTREAM instrument.

New Options

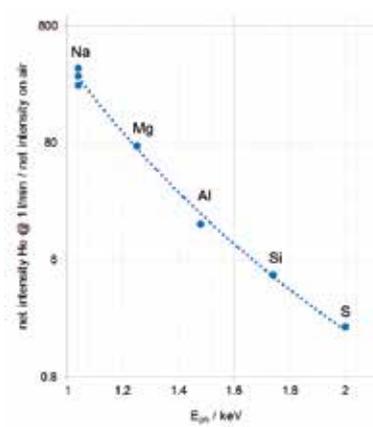
- 60 mm² SD detector for higher measurement speed and less exposure time
- He purge system to enhance the detection of light elements from Ca to Na
- Flight cases for easy transport and protection of your investment

Micro-XRF spectra measured with He purge



Spectrum of a soda-lime float glass sample (NIST 620) measured with He purge (red) and without He purge (blue). The sensitivity for light elements is obviously improved.

Intensity gain for selected elements



Relative intensity gain for light elements. The intensity gain goes from x2 for S up to x80 for Mg. Without He purge Na cannot be detected at all, its gain (x200) is extrapolated.

60 mm² silicon drift detector

In comparison to a standard 30 mm² detector with the same measurement statistics, the signal intensity of the larger area detector increases by almost a factor of 2.

Further advantages of the 60 mm² detector are the shorter measurement time per pixel and the faster mapping speed.

He purge

Due to the absorption of the characteristic fluorescence in air, the standard M6 JETSTREAM cannot detect elements below silicon. The point-by-point analysis of light elements is realized by the combined use of a polycapillary lens filled with He and a He purge system.

The air volume between the sample and the detector is replaced by a column of continuously flowing helium via the purging cover, thus effectively eliminating absorption of lower energy

photons on their way to the detector. This significantly improves the sensitivity for all elements from Ca down to Na as can be seen in the spectrum.

Flight case system

The flight case system consisting of two cases ensures the optimal protection of the M6 JETSTREAM and all its components during transport and makes it possible to quickly pack, unpack and commission the instrument.

The kinematics case (1510 x 1916 x 760 mm³, 126 kg) houses the kinematic frame of the M6 JETSTREAM as well as accessories (control unit, monitor, control panel, He purge cylinder).

The electronics case (1593 x 1535 x 715 mm³, 99 kg) safely accommodates the lower frame components including the electronics and the measurement head during transport. The simple packing and unpacking is ensured by the integrated ramp.

Options



Measurement head with SD detector



He purge



Flight cases for kinematics and electronics

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