

The Power to Change Energy Into Information



# EX-6600 SDD

### Secondary Target EDXRF

- Elemental analysis F(9) U(92) from single ppm to 100% concentrations.
- Silicon Drift Detector (SDD) enables extremely high count rate applications with excellent energy resolution, suitable for both high and low z elements.
  - Save cost and time! Liquid Nitrogen FREE.
- Combining 300W tube power, secondary target mode and SDD technology lead to a workhorse instrument every laboratory can dream about.
- Close-coupled optics using secondary target mode allows greater flux and superior sensitivity.
- Eight customizable filters and eight secondary targets for fast and accurate determination of trace and minor elements.

## The Ultimate in Analytical Performance

Xenemetrix is a leading designer, manufacturer and marketer of Energy-Dispersive X-ray Fluorescence (EDXRF) systems and components for a wide range of industries and applications. Relying on more than

30 years experience in the field, Xenemetrix provides quality and cost effective answers to real world analytical challenges by combining the latest technological developments with innovative engineering.

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### **EX-6600 SDD**

Xenemetrix's EX-6600 SDD Energy Dispersive X-ray Fluorescence (EDXRF) spectrometer offers the ultimate in sensitivity and selectivity.

The Silicon Drift Detector (SDD) simultaneously delivers lower electronic noise and higher count rates which translates to higher energy resolution and faster results compared to a Si-PIN detector.

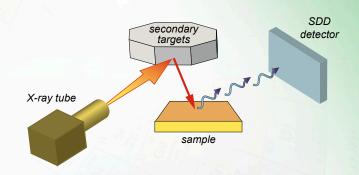
Eight secondary targets provide maximum sensitivity for fast and precise quantification even in difficult matrices such as alloy, plastic and geological samples. Targets are fully customizable to achieve sub-ppm detection limits.

The versatile EX-6600 SDD can analyze liquids, solids, slurries, powders, pellets and air filters and the analytical chamber accommodates samples of different shapes and sizes.

The integral design of the 10-position autosampler permits minimal operator intervention and allows automatic loading and unattended operation.

This fast, accurate, easy-to-use instrument has robust hardware and powerful analytical software to achieve low detection limits.

The Multi-Channel Acquisition resolution provides superior peak-to-background ratio for improved detector response.



### **Key Applications**

Mining & Minerals

Metallurgical

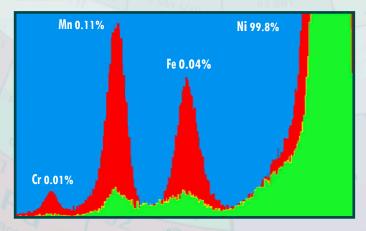
Environmental

Petrochemical

Radioactive Materials Research



## Secondary Target Excitation



The green spectrum shows a Ni alloy containing 99.8% Ni and small amounts of Cr, Mn and Fe as impurities.

The response in direct excitation for these elements are muted by the absorption effect of the Ni signal. Using a Ni secondary target (Red Spectrum), the excitation of the Ni is less efficient, but the excitation efficiency for Fe, Mn and Cr is greatly enhanced, as shown by the peak responses for these elements.

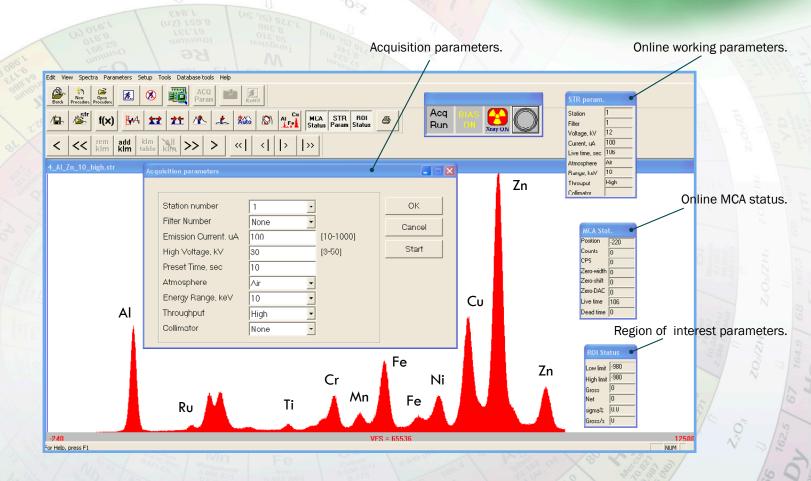
## EX-6600 SDD - Lab EDXRF spectrometer

| Magaurament Canability                                 |   |
|--|---|
| Measurement Capability                                 | To lie o  |
| Detectable Range                                       | F(9) - U(92).   |
| Detectable Concentration                               | ppm - 100% (ppb in certain applications).   |
| X-Ray Generation                                       |   |
| X-Ray Tube   | Rh - anode standard (Mo, W, Ag, Cr optional).   |
| X-Ray Source   | 60kV, 300W.   |
| Excitation type  | Direct and secondary target excitation.   |
| Stability  | Precision 0.1% at ambient temperature.  |
| X-Ray Detection  |   |
| Detector   | Silicon Drift Detector (SDD), liquid nitrogen FREE.   |
| Resolution (FWHM)                                      | 136 eV ± 5eV at 5.9 keV.  |
| Window   | Be.   |
| General Features                                       |   |
| Auto sampler   | 10 positions.   |
| Work atmosphere  | Air/ Vacuum/ Helium.  |
| Tube filters   | 8 software selectable.  |
| Secondary targets                                      | 8 software selectable: Zr, Si, Ti, Fe, Ge, Mo, Sn, Gd.  |
| Power Supply   | 115 VAC/60 Hz or 230 VAC/50 Hz.   |
| Pulse Processing                                       | Multi-channel analyzer.   |
| Optics   | Patented WAG <sup>®</sup> (Wide Angle Geometry).  |
| System dimensions<br>(L x W x H, cm)                   | Unpacked: 85 x 85 x 105, Packed: 145 x 95 x 135.  |
| System weight  | 170kg (net), 220kg (gross).   |
| Chamber dimensions                                     | 28cm diameter, H=5cm.   |
| Computer   | Integrated PC.  |
| Software   |   |
| Operating Software                                     | nEXt™ analysis package, running under Microsoft Windows™ XP + basic Fundamental Parameters.   |
| Control  | Automatic control of excitation, detection, sample handling and data processing.  |
| Spectrum Processing                                    | Automatic escape peak and background removal. Automatic peak deconvolution. Graphical statistics.                                     |
| Quantitative Analysis<br>Algorithms                    | Multi-element regression with inter-element corrections (six models available). Gross, net, fit and digital filter intensity methods. |
| Reporting  | User-customizable data print out.   |
| Options at additional cost<br>(contact us for pricing) | 18 pos. carousel autosampler. Sample spinner. Professional Fundamental Parameters.  |



## Software environment (GUI)

Simple, straight forward, user friendly nEXt<sup>™</sup> platform.



#### **Worldwide Distributions:**

NORTH AMERICA, LATIN AMERICA, EUROPE, ASIA, AUSTRALIA, AFRICA & MIDDLE EAST

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