

Oxford Instruments' new X-Strata980 for analysis of trace elements and measurement of coating thickness

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Oxford Instruments is pleased to release its new X-Strata980 X-ray fluorescence analyzer which combines a high-power X-ray tube and large LN2 free detector, to measure small areas of complex samples and deliver limits of detection in single digit ppms. Detecting hazardous elements in small amounts assures the production of environmentally friendly product and saves business from costly recalls or enforcements of regulatory legislation.

The instrument performs excellent analysis and characterization of multi-layer coatings, SAC alloys, μ PPF and solar panels. Other key applications for this instrument include coating thickness measurement of gold and palladium on electronics, metal alloy chemistry identification, and coating thickness measurement on jewelry.

With a high resolution detector, the X-Strata980 makes it easier to identify, quantify and differentiate neighboring elements. The large detector size increases the count rate, so that most analysis can be done in seconds to minutes. Choose the best of five primary filters to selectively excite a particular element of interest and get optimum application performance. Features as small as 150 microns in size can be measured. Collimators in a variety of sizes are available.

The Oxford Instruments design team knows that in the real world, one doesn't always know the matrix or range of elements to be analyzed. The X-Strata980 offers the freedom to choose the best calibration method for a specific application – either empirical or fundamental parameter calibration or a combination of both. When the matrix and range is known, the empirical calibration method will give you the best accuracy for alloy identification and chemical composition. But when matrix matches and standards are not readily available, then the fundamental parameter technique with full spectrum database provides reliable quantitative analysis covering a wide range of concentrations and thicknesses for complex coatings and substrates.

A large area can be qualitatively analyzed in one measurement cycle using the X-Strata980's mapping function. Once problem areas are identified, the operator can return to specific spots with pinpoint accuracy and execute quantitative analysis. With the analyzer's embedded camera and live video imaging, precise sample placement is assured. Generate an image of the entire sample with the concentration or intensity of an element superimposed with a false color map. Produce composite maps that display the combined intensity or concentration of multiple elements.

The X-Strata980 offers complete statistical data functions and a user programmable display for color coded pass/fail warnings for elements of interest. Detailed reports are available to show due-diligence when testing for hazardous elements in consumer goods. Shortcut keys allow the user to choose proper calibrations for a particular sample with just one click. The user interface is available in nine different languages.

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Oxford Instruments Industrial Analysis

OIIA offers a range of Analytical Instruments designed for demanding quality control applications. From materials analysis to thickness gauging, the Industrial Analysis products incorporate the latest in available technology, coupled with over 30 years of experience in designing, producing and supporting world class instruments.

X-MET handheld X-ray Fluorescence (XRF) analysers and our expanded range of ARC/Spark mobile Optical Emission Spectrometers (OES) are specifically designed for positive material identification, alloy analysis and the determination of hazardous materials for RoHS compliance. Our OES systems comprise: ARC-MET, FOUNDRY-MASTER, PMI-MASTER PRO, PMI-MASTER SORT, TEST MASTER.

Lab-X, Twin-X, ED2000 and MDX1000 XRF spectrometers span the price/performance range for routine chemical analysis. From Sulfur in petroleum products to the analysis of limestone, we can match exactly the correct spectrometer to your needs, as we offer the broadest range in the industry.

For thickness gauging applications we offer handheld magnetic and eddy current gauges to full function, high performance XR systems. Our X-Strata960 and X-Strata980 systems provide world-class performance for coating thickness measurement.

OIIA recently acquired WAS AG (Worldwide Analytical Systems), a leading German manufacturer and international supplier of Arc/Spark optical emission spectrometers and preparatory equipment used to analyse the chemical properties of metals. The acquisition forms part of our strategy to deliver added value and enhanced service to our customers.

Oxford Instruments plc

Oxford Instruments designs, supplies and supports high-technology tools, processes and solutions with a focus on physical science, bioscience, environmental and industrial research and applications. It provides solutions needed to advance fundamental nanoscience research and its transfer into commercial nanotechnology applications. Innovation has been the driving force behind Oxford Instruments' growth and success for over 40 years, and its strategy is to effect the successful commercialisation of these ideas by bringing them to market in a timely and customer-focused fashion.

The first technology business to be spun out from Oxford University over forty years ago, Oxford Instruments is now a global company with over 1,300 staff worldwide and a listing on the London Stock Exchange (OXIG). Its objective is to be the leading provider of new generation tools and systems for the Physical Science and Bioscience sectors.

This involves the combination of core technologies in areas such as low temperature and high magnetic field environments, Nuclear Magnetic Resonance, X-ray electron and optical based metrology, and advanced growth, deposition and etching. Our products, expertise, and ideas address global issues such as energy, environment, terrorism and health and are part of the next generation of telecommunications, energy products, environmental measures, security devices, drug discovery and medical

advances.

[You can find this press release here](#)