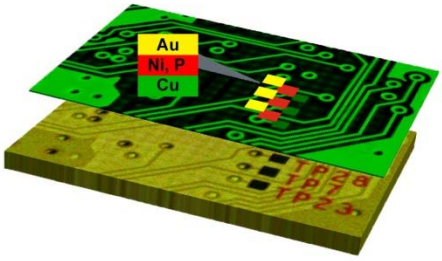
Bruker Introduces Software Package for Layer Analysis with XTrace Micro-XRF on Electron Microscopes

ST. LOUIS, Missouri – August 7, 2017 – At the Microscopy & Microanalysis 2017 Meeting Bruker today presents ***XMethod***, the world's first software package for the analysis of composition and thickness of single or multiple layers, based on data obtained by sample excitation with the XTrace micro-focus X-ray source for scanning electron microscopes (SEM). The software enables the characterization of thin films and multi-layer structures of thickness ranging from a few nanometers up to 40 microns without the need for cross sectioning the sample.

Compared to sample excitation with high-energy electrons, X-ray excitation yields significantly improved limits of detection, especially for higher-Z elements, and also enables obtaining information on the material several tens of microns beneath the surface. These features make ***XMethod*** in combination with XTrace the ideal tool for thickness and composition analysis of layer stacks in the SEM. Typical layer thickness applications include the analysis of connector pins or solder bumps on printed circuit boards, lead frames and chip carriers, as well as coatings on solar cells.



Layer analysis of PCB connector pins

The ***XMethod*** software contains a powerful method editor, which allows the creation of standardless or standard-based multi-layer quantification methods and their calibration.

Andreas Kahl, Senior Director Product Management at Bruker's Nano Analytics Division, stated: "As a leading provider of stand-alone Micro-XRF instruments, we take pride in the fact that with the introduction of ***XMethod***, the SEM user can now also take advantage of the Micro-XRF technology for the analysis of thin films, multilayer structures or coatings".


XTrace, Bruker's micro-spot X-ray source for SEM

About Bruker Corporation (NASDAQ: BRKR)

For more than 55 years, Bruker has enabled scientists to make breakthrough discoveries and develop new applications that improve the quality of human life. Bruker's high-performance scientific instruments and high-value analytical solutions enable scientists to explore life and materials at molecular, cellular and microscopic levels. In close cooperation with our customers, Bruker is enabling innovation, productivity and customer success in life science molecular research, in applied and pharma applications, in microscopy, nano-analysis and industrial applications, as well as in cell biology, preclinical imaging, clinical research, microbiology and molecular diagnostics. For more information, please visit: www.bruker.com.

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