

Using Micro XRF for Elemental Mapping and TXRF for Trace Elemental Analysis

ABSTRACT

Energy Dispersive X-ray Fluorescence Spectroscopy is a widely accepted technique in the research areas of geology, metals, and petrochemical analysis. With the advent of Micro Spot X-ray tubes and optics, ED-XRF based techniques can now be used in areas that require ultra low detection limits and small spot analysis. In this presentation, Mike Beauchaine will discuss the use of TXRF (Total Reflection X-ray Fluorescence) for trace elemental analysis using only micrograms of sample for nanoparticles and biological research. He will also present research within materials analysis, geology, and forensics using small spot Micro XRF spectroscopy, full area mapping, and quantification of elements ranging from Na to U.

BIOSKETCH



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After graduating from Lawrence University with a degree in Biochemistry, Mike joined the analytical industry in Applications focusing on Infrared Spectroscopy before moving into International Sales and Product Management. Six years ago, Mike joined Bruker AXS and now focuses on TXRF and Micro XRF instrumentation. Mike is currently Business Development Manager for North and South America and focuses on a wide range of technical applications, method development, and marketing for elemental analysis.