

Paper Number: 2046

SumXcore technology to improve the analysis of geological materials

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The elemental analysis of geological materials can typically be very challenging due to the wide elemental and analytical range possible. XRF techniques have traditionally been a popular technique to do so with low detection limits and analytical ranges from sodium (F) to americium (Am). Depending on the analytical requirement geological analysis is often conducted with either wavelength dispersive (WD) or energy dispersive (ED) spectrometers which both have their unique advantages.

A new and innovative way of doing elemental analysis will be discussed using the Zetium spectrometer incorporating SumXcore technology. This uses both WD and ED technologies simultaneously in one instrument to dramatically decrease measurement times or improve precision without compromising the analytical requirement achieved if only one technology had been used. In short, the combination of both technologies allows one to maximize the benefits of both techniques in one instrument.

The application of this technology will be discussed in the analysis of geological materials with specific attention to time savings to achieve a specified analytical requirement including typical requirements such as accuracy, repeatability and detection limits to name a few.



