

## Press Release

# Rigaku publishes EDXRF method for analysis of copper in ore materials

Austin, TX –September 30, 2015. [Applied Rigaku Technologies, Inc.](#) announced a new empirical method for the elemental analysis and measurement of copper in ore by energy dispersive X-ray fluorescence (EDXRF). The method is suitable for exploration and ore grade control at the mine site, and the published report provides details about sample preparation, calibration and repeatability.

Elemental analysis is essential for screening samples at the mine site, as well as throughout the processing of ores, to ensure proper extraction and process control. During smelting, major and minor elements are closely monitored in the ore, concentrates, slags and tails.

Rigaku EDXRF application note # 1457 demonstrates the utility of the [Rigaku NEX QC analyzer](#) for elemental analysis of metals in ore samples. Simple yet versatile, the NEX QC™ analyzer is easily transportable to the mine site, rugged enough for the smelting operations, and powerful enough for work in a central lab. It utilizes 50 kV direct excitation and a high-performance semiconductor detector to provide excellent sensitivity in a low-cost tool ideal for the analysis of ore materials.

For the analysis described in the report, the material was ground to a dry, homogeneous powder approximately 100-200 mesh (75-150 µm particle size). To demonstrate precision, low, medium and high copper samples were chosen from the set of calibration standards. Each sample was measured for ten repeat analyses. The empirical method was employed to determine detection limits in a clean matrix.

The results of the study indicate that the NEX QC EDXRF analyzer is an optimal tool for use by the copper industry for screening and quantifying copper ore from the mine, as well as for identifying and quantifying elemental composition of a wide variety of materials.

Request a copy of the report: [http://www.rigakuedxrf.com/edxrf/app-notes.html?id=1457\\_AppNote](http://www.rigakuedxrf.com/edxrf/app-notes.html?id=1457_AppNote)

### About Rigaku

Since its inception in Japan in 1951, Rigaku has been at the forefront of analytical and industrial instrumentation technology. Rigaku and its subsidiaries form a global group focused on life sciences and general purpose analytical instrumentation. With hundreds of major innovations to its credit, Rigaku and its subsidiary companies are world leaders in the fields of small molecule and protein crystallography, X-ray spectrometry and diffraction, X-ray optics, as well as semiconductor metrology. Rigaku employs over 1,100 people globally and its products are in use in more than 70 countries – supporting research, development, production control and quality assurance activities. Throughout the world, Rigaku continuously promotes partnerships, dialog, and innovation within the global scientific and industrial community.

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