

Press Release

A New Application Report from Rigaku Describes Elemental Analysis Method for Silver and Copper in Ore by EDXRF

Austin, TX – April 26, 2016. [Applied Rigaku Technologies, Inc.](http://www.rigakuedxrf.com) today announced a new method for the analysis of low levels of precious metals in copper ore by energy dispersive X-ray fluorescence (EDXRF). Rigaku EDXRF Application Note 1575 describes the measurement of silver (Ag) and copper (Cu) in copper ore and demonstrates the performance of the [Rigaku NEX DE](http://www.rigakuedxrf.com) EDXRF spectrometer. The report includes complete information about sample preparation, method calibration and repeatability.

Silver naturally occurs in various ore and minerals, often as sulfides or chlorides or in combination with arsenic or antimony. A main source of silver is copper ore. It is also found in copper-nickel, gold, lead and lead-zinc ores. Silver and other precious metals are also reclaimed from tailing piles or other recycled ore materials that would otherwise be discarded. The silver, therefore, must often be measured at relatively low levels, since low silver levels can be considered profitable to extract.

For the analysis detailed in this report, ore samples were ground to dry, homogeneous powders. Calibration was performed by empirical regression to ensure accuracy.

Measurement was performed using the Rigaku NEX DE EDXRF analyzer with 60 kV excitation source. The unit's multiple automated tube filters and high-throughput SDD detector, capable of yielding 500,000+ cps, deliver excellent sensitivity for the measurement of higher atomic number elements like silver.

The results detailed in the report show outstanding performance by the NEX DE analyzer for the precise measurement of low levels of precious metals in ore, as well as the major and minor ore constituents.

A copy of this application report may be requested on Rigaku's EDXRF website:
<http://www.rigakuedxrf.com/edxrf/app-notes.html?id=1575> 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 1,400 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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**Rigaku NEX DE - Energy
Dispersive X-ray Fluorescence
Spectrometer**