

Press Release

Rigaku Publishes Method for EDXRF Analysis of Dolomite

Austin, TX— January 17, 2017. [Applied Rigaku Technologies, Inc.](#) today announced a new empirical method for the elemental analysis of oxide minerals in dolomite (calcium magnesium carbonate).

Rigaku Application Note #1626 describes a method employing energy dispersive X-ray fluorescence (EDXRF) for the measurement of calcium carbonate (CaCO_3), magnesium carbonate (MgCO_3), ferric oxide (Fe_2O_3), aluminum oxide (Al_2O_3), silicon dioxide (SiO_2) and potassium oxide (K_2O) in dolomite using empirical calibration. The report includes detailed information describing sample preparation, calibration and repeatability, and highlights the performance of the [Rigaku NEX QC+](#) high-resolution benchtop EDXRF spectrometer.



The Rigaku NEX QC+ high-resolution benchtop EDXRF analyzer

Dolomite is typically used as an aggregate in concrete and asphalt for building roads. During mining and processing operations, dolomite composition must be monitored and controlled to ensure proper quality and desired characteristics for various applications.

For the analysis described in the report, the sample is ground into a homogeneous powder approximately 100-200 mesh and prepared as a hydraulically pressed pellet.

Measurement was performed using the NEX QC+ EDXRF spectrometer, a self-contained analyzer with simple touch screen operation; it is suited for at-line control and quality checks throughout the mining and processing of dolomite. As a high-performance, low cost benchtop EDXRF system, the NEX QC+ analyzer is designed to provide an optimal means for measuring major carbonate and oxide components in dolomite, with simple and intuitive software designed for the non-technical at-line operator or for use in quality control labs.

The performance shown in the report demonstrates that the NEX QC+ system provides excellent sensitivity and performance for the measurement of carbonates and major oxides in dolomite. Self-contained with simple touch screen operation, NEX QC+ is an ideal tool for at-line control and quality checks throughout the mining and processing of dolomite.

A copy of this report may be requested at:

http://www.rigakuedxrf.com/edxrf/app-notes.html?id=1626_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 90 countries – supporting research, development, and 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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