

Rigaku Publishes EDXRF Method for Analysis of Carbon Black

A new application report from Applied Rigaku Technologies, Inc. presents the elemental analysis of carbon black and related products by Energy Dispersive X-ray Fluorescence.

April 27, 2020, Austin, TX – Applied Rigaku Technologies, Inc. (<u>ART</u>) has published an application report describing the analysis of carbon black by *Energy Dispersive X-ray Fluorescence* (<u>EDXRF</u>).

Carbon black is a material produced by the incomplete combustion of heavy petroleum products and is mainly used as a reinforcing filler in tires and other rubber products, and is used to strengthen engine hoses and gear belts. It is also used as copier toner inks and as pigment in polymers. The elemental characterization of carbon black is critical in ensuring proper quality of the contingent products.



Rigaku NEX DE energy dispersive X-ray fluorescence spectrometer

The method presented in Rigaku Application Note #1846 describes the elemental analysis of carbon black and demonstrates the performance of the Rigkau NEX DE EDXRF analyzer. The report includes complete information about sample preparation and detailed analysis results, and is available on the company's global website.

For the analysis detailed in this report, measurements were performed with the NEX DE EDXRF analyzer with 60 kV excitation source and a high-resolution and high-throughput Silicone Drift Detector. The versatile RPF-SQX software enables semi-quantitative analysis without the need for assayed reference materials and offers a simple, intuitive process for elemental identification (Na-U), screening and characterization of raw materials and final products.

A copy of this report may be at https://www.rigakuedxrf.com/app-notes.php?id=1846 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 general-purpose analytical instrumentation and the life sciences. With hundreds of major innovations to their credit, Rigaku companies are world leaders in X-ray spectrometry, diffraction, and optics, as well as small molecule and protein crystallography and semiconductor metrology. Today, Rigaku employs over 1,400 people in the manufacturing and support of its analytical equipment, which is used in more than 90 countries around the world supporting research, development, and quality assurance activities. Throughout the world, Rigaku continuously promotes partnerships, dialog, and innovation within the global scientific and industrial communities.

For further information, contact:

Robert Bartek, President Applied Rigaku Technologies, Inc. tel: +1. 512-225-1796 info@RigakuEDXRF.com

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