

Press Release

Low-cost EDXRF Analysis of Phosphorus Flame Retardant on Fabric

Austin, TX – December 20, 2011. Applied Rigaku Technologies, Inc. today announced a new energy dispersive XRF method for the analysis of phosphorus flame retardant compound on fabric.

Application Note #1127 demonstrates the effectiveness of the [Rigaku NEX QC](#) benchtop EDXRF analyzer for the analysis of phosphorus flame retardant compounds on fabric by Energy Dispersive X-ray Fluorescence spectrometry.

The flammability of many textiles, including easily ignitable cotton or polyester materials, necessitates that clothing fabrics be treated with flame retardant compounds to suppress the burn rate. Phosphorus based flame retardants have not been shown to form carcinogens during combustion, such as dioxins or furans. Work clothes, uniforms, baby clothing and other garments, therefore, are typically coated with a phosphorus compound for the purpose of flame retardancy.

During the coating and processing of treated fabrics, the flame retardant material must be closely monitored to ensure optimum quality without incurring cost overruns due to product rejection or overuse of chemicals. The method described details the ability of the NEX QC to provide a quick, reliable and non-destructive means of monitoring flame retardant concentrations throughout the entire QC process.

A copy of this report may be requested at: http://www.rigakuedxrf.com/edxrf/app-notes.html?id=1127_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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