

## Press Release

# Rigaku to Feature X-ray Analytical Solutions at 6th Tribology Frontiers Conference

**Applied Rigaku Technologies, Inc. will present the latest EDXRF analytical technology at the Society of Tribologists and Lubrication Engineers virtual conference**

**October 28, 2020, Austin, TX** – Applied Rigaku Technologies, Inc. ([ART](#)) is pleased to announce its participation in the *Society of Tribologists and Lubrication Engineers (STLE) Tribology Frontiers Virtual Conference*.

The Tribology Frontiers Conference (TFC) focuses on studying the effects of friction on moving machine parts and methods, such as lubrication, of counteracting them. The conference highlights the role of tribology at the interface of physics, chemistry, materials science and mechanical engineering.

Rigaku will join tribology researchers from more than 30 countries for the 6th STLE Tribology Frontiers Conference, to be held Nov. 9 – 13, 2020, online at [www.stle.org](http://www.stle.org).



**Rigaku NEX DE – Energy Dispersive X-ray Fluorescence Spectrometer**

Lubricating oils are used in on-road and off-road engines, as well as in the lubrication of mechanical equipment. Each type of oil is specifically formulated for a particular use, as various additives are blended in base lube oil to enhance performance and create the optimum lubricity properties for each designated application. Proper and safe operation of engines and machinery depends to a large degree on formulation of metallic additives. X-ray fluorescence (XRF) is a fast, simple method of analyzing lube oils for metallic composition.

Applied Rigaku Technologies, a “Pioneer” sponsor of the event, will be presenting its *Energy Dispersive X-ray Fluorescence (EDXRF)* solutions for petroleum and petrochemical analysis. Compact and easy to use, EDXRF analyzers are ideal for non-technical operators, yet powerful enough for expert use in commercial labs, and research and development facilities developing new lube oil formulations.

Rigaku EDXRF analyzers are suited for test methods such as ASTM D7751 – *Standard Test Method for Determination of Additive Elements in Lubricating Oils by EDXRF Analysis*. Appropriate systems include the [Rigaku NEX DE](#) premium high-performance direct excitation EDXRF spectrometer and the [Rigaku NEX CG](#) Cartesian-geometry elemental analyzer.

The NEX DE analyzer was developed for heavy industrial applications and engineered to maximize flexibility and ease of use. It is equipped with a 60 kV, 12 W X-ray tube and advanced Peltier cooled silicon drift detector (SDD) for significant gains in elemental peak resolution and counting statistics, to deliver superior calibrations and precision for the most challenging measurements.



**Rigaku NEX CG – Cartesian  
Geometry Energy Dispersive X-ray  
Fluorescence Spectrometer**

The Rigaku NEX CG EDXRF spectrometer is designed for rapid qualitative and quantitative determination of major and minor atomic elements across a wide variety of sample types. It is especially well-suited to the semi-quantitative determination of elemental content in unknown samples.



**Rigaku NEX QC+ – Energy Dispersive  
X-ray Fluorescence Spectrometer**

Also featured is the Rigaku NEX QC Series of elemental analyzers, designed for rapid qualitative and quantitative determination of major and minor atomic elements in a wide variety of sample types. The series includes the **NEX QC** low-cost benchtop EDXRF analyzer and the **Rigaku NEX QC+** high-resolution benchtop EDXRF spectrometer, for more demanding applications or for situations where analysis time or sample throughput is critical. Both systems are suited for monitoring the elemental concentration of lubricating oils in accordance with ASTM D6481, *Standard Test Method for Determination of Phosphorus, Sulfur, Calcium, and Zinc in Lubrication Oils by Energy Dispersive X-ray Fluorescence Spectroscopy*.

More information about EDXRF applications for the elemental analysis of oils, fuels, lubricants is available at <https://www.rigakuedxrf.com/petroleum.php>

### **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.

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