## **Press Release**

## Issue 73 of *The Bridge*, the Materials Science newsletter from Rigaku, is online

The July 2019 edition of The Bridge newsletter from Rigaku focuses on materials science and is now available from the company's website

**July 31, 2019 – The Woodlands, Texas.** The July 2019 edition of <u>*The Bridge*</u>, the materials science newsletter from <u>Rigaku Corporation</u>, is now available online on the company's global website. *The Bridge* features current news and analysis techniques related to X-ray based materials science, including X-ray diffraction, fluorescence and imaging, and presents articles, scientific papers and news reports.

The featured article covers a common materials database for multiple application plugins, where information about frequently used materials can be saved. The data are classified and stored enabling frequently used material information to be easily referenced when needed.

This month's featured X-ray diffraction (XRD) technical note covers structure determination of ferroelectric nano-powder by atomic Pair Distribution Function analysis (PDF). The results from an analysis of the structure of a nano-sized barium titanate (BT) powder material are shown.

The wavelength dispersive X-ray fluorescence (<u>WDXRF</u>) application note shows how the unique "Ultra Carry" filter paper enables analysis of trace elements in water solution and is applicable to boron and fluorine analysis. The application demonstrates use of the micro-droplet method of analysis.

The energy dispersive X-ray fluorescence (<u>EDXRF</u>) note describes the measurement of chromium (Cr) conversion coating on hot-dip galvanized steel. Aluminum and steel are often coated with a protective coating to prevent oxidation and corrosion of the base metal.

<u>The Lives of Bees: The Untold Story of the Honey Bee in the Wild</u> by Thomas D. Seeley is the subject of the latest book review. The book presents the culmination of over four decades of research on wild honeybees.

To commemorate the 50th anniversary of the Apollo 11 moon landing, the featured video is presented from a link to a real-time recreation of the mission.

As always, links to the latest news stories and recently published scientific papers covering the latest developments in materials science are included along with a report on the 18th International Conference on Total Reflection X-ray Fluorescence Analysis and Related Methods (TXRF2019) and Workshop. A schedule of conferences and workshops is also included.

Readers can subscribe to the newsletter or view the current issue online at <u>https://www.rigaku.com/subscribe</u>

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## 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 generalpurpose 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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