

Press Release

The March edition of *The Bridge*, the Materials Science newsletter from Rigaku, is now online

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Issue 69 of The Bridge newsletter from Rigaku, covering the latest materials science news, is available from the company's website

March 26, 2018 – The Woodlands, Texas. The latest edition of <u>The Bridge</u>, the materials science newsletter from <u>Rigaku Corporation</u>, is now available on the company's global website. *The Bridge* highlights current news and techniques related to X-ray based materials science, including news reports, articles and scientific papers.

The March edition of *The Bridge* contains application papers for X-ray diffraction (XRD), energy dispersive X-ray fluorescence (EDXRF) and wavelength dispersive X-ray fluorescence (WDXRF), as well as useful content related to X-ray diffraction & elemental analysis

The new issue begins with coverage of the introduction of the new Rigaku unified brand identity, launched at the 70th annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Pittcon 2019). As part of the new brand identity, a Rigaku Digital Portal Initiative (R-dpi) was also launched at Pittcon, (https://www2.Rigaku.com), with state-of-the-art fully responsive design. It features predictive search with faceted results to enable rapid discovery of potential solutions to customer problems.

This month's highlighted XRD technical note evaluates the change in crystal systems of pharmaceuticals and foods may due to factors such as temperature and humidity. The thermal changes and changes in the crystal structure of pharmaceuticals were observed by simultaneously measuring X-ray diffraction and differential scanning calorimetry (<u>DSC</u>) while varying humidity.

The EDXRF application report demonstrates the measurement of titanium dioxide (TiO₂) and zinc oxide (ZnO) in lotions. These compounds are added to lotions, creams and various cosmetics as whitening agents and as a sunscreens.

A featured article discusses the control of ultra-low levels of phosphorous (P), sulfur (S) and chlorine (CI) in oil samples by WDXRF, highlighting the performances of the Rigaku Supermini200 benchtop sequential WDXRF spectrometer.



"Material Analysis in the News" - an overview of the latest developments in materials science – assembles several news stories from March, including a story about the activity of Japan's Hayabusa2 spacecraft at the asteroid known as Ryugu. JAXA, Japan's space program, arrived at the space rock last year and, was able collect samples of it surface. Now, JAXA is planning for an even more daring maneuver—retrieving material from within the asteroid itself.

"Recent Scientific Papers of Interest is a monthly compilation of material analysis papers appearing in recently released journals and publications. 27 new scientific papers are presented in the current issue.

Readers can subscribe to *The Bridge* or view the current and past issues online at https://www.rigaku.com/subscribe

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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