Press Release

Rigaku launches the XtaLAB PRO series of single crystal X-ray diffraction HPAD-based systems

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August 5, 2014 – Tokyo, Japan. Rigaku Corporation today announces the release of a new product line for single crystal diffraction. The XtaLAB PRO series is designed around hybrid pixel array detector (HPAD) technology, a technology that produces the best possible single crystal diffraction data available today. At the core of the system is the Dectris PILATUS 200K detector, a photon-counting detector that is essentially noise free and offers extremely fast readout times and a dynamic range high enough even for synchrotron sources. The XtaLAB PRO diffractometer, in a dual source configuration, will be on display at the IUCr meeting in Montreal from August 5th through the 9th.

The Rigaku XtaLAB PRO single crystal diffractometer with PILATUS 200K PILATUS 200K Hybrid Pixel Array Detector

"To our customers, HPAD technology means that they can perform shutterless data collection, today – not some promise in the future." says Dr. Paul Swepston, President of Rigaku's Single Crystal Strategic Business Unit. "Shutterless data collection is a huge timesaver and produces even better data when using an HPAD detector. In addition, the extremely low noise characteristics of HPAD technology mean that weakly diffracting crystals can be measured with long exposure times, without the diffraction signal being swamped by electronic detector noise."

The XtaLAB PRO series can be configured with many different X-ray sources, including a dual source configuration utilizing both micofocus sealed tube technology and standard X-ray tube technology with special curved focusing optics. For customers that have poorly diffracting samples or the need for high throughput, Rigaku's world-leading rotating anode sources can be configured with the XtaLAB PRO systems.

The XtaLAB PRO series is also being introduced with a new software package, XtaLAB PRO Guidance, which has a simplified user interface as well as new underlying computational engines that have been rewritten with all of the modern processing algorithms incorporated.

As chemists continue to synthesize larger and larger non-biological molecules, such as MOFs, the needs of the small molecule crystallographer and protein crystallographer become closer and closer. The XtaLAB PRO series bridges the gap between the areas of small molecule crystallography and macromolecular crystallography.

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 in the manufacture and support of its analytical equipment. Its products are in use in more than 70 countries – supporting research, development, 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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