



Rigaku Global Corporation

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Press Release

Rigaku Launches New 2D Photon Counting X-ray Detector for Diffraction Studies

April 1, 2014 – Tokyo, Japan. Rigaku Corporation is pleased to announce the release of the [Rigaku HyPix-3000](#) detector, a next-generation two-dimensional semiconductor detector designed specifically to meet the needs of the home lab diffractionist. The HyPix™-3000 is a hybrid pixel array detector with a large active area of approximately 3000 mm², a small pixel size of 100 μm², a high count rate of greater than 10⁶ cps/pixel, a fast readout speed and essentially no noise. Seamless switching from 2D-TDI (Time Delay and Integration) mode to 2D snapshot mode to 1D-TDI mode to 0D mode with a single detector makes the HyPix-3000 the most versatile and timesaving diffraction detector on the market today. Each pixel on the HyPix-3000 detector has dual energy discriminators, which makes it possible to adjust the energy window width by setting the energy threshold to “high” and “low,” respectively. The low-energy discriminator can eliminate electrical noise and reduce fluorescence background, and the high-energy discriminator can eliminate cosmic rays and white radiation. As a result, data can be measured with an optimized signal-to-noise ratio.

Rigaku’s HyPix-3000 detector is available as an option on the popular [Rigaku SmartLab](#) diffractometer, an instrument capable of performing powder, thin film, SAXS, reflectivity, and in-plane scattering experiments. The flexibility of the SmartLab™ diffractometer is augmented and enhanced by the leading edge capabilities of the HyPix-3000 detector.

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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