Bruker and DECTRIS Announce Advances in D8™ X-ray Diffraction Systems with the New EIGER2 R 500K Detector

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HYDERABAD, India, Aug. 22, 2017 /PRNewswire/ -- At the 24th Congress and General Assembly of the International Union of Crystallography (IUCr), Bruker and DECTRIS today announce the EIGER2 R 500K, the latest generation of Hybrid Photon Counting (HPC) pixel detectors developed by DECTRIS, the technology leader for HPC detectors for laboratory instrumentation and synchrotron beam lines. In close collaboration, DECTRIS and BRUKER have seamlessly integrated this outstanding 2D detector into Bruker's D8 ADVANCETM and D8 DISCOVERTM instrument platforms to further improve performance for numerous X-ray diffraction (XRD) applications.

The most recent generation of the proprietary EIGER HPC detector offers a distinctive set of enhanced and new benefits for XRD: high frame rate enabling 2D data collection in continuous scanning mode, single photon counting without spatial distortion, highest count rates and dynamic range. In combination with the Bruker D8TM X-ray diffraction systems, switching between 0D, 1D and 2D mode is possible.

These new features are fully integrated into the Bruker D8 X-ray diffraction systems, and enable the EIGER2 R 500K detector to produce excellent diffraction data for applications from powder diffraction (XRPD), micro diffraction (µXRD), texture or residual stress analysis, crystallite size determination, thin film analysis by X-ray reflectometry (XRR) and high-resolution diffraction (HRXRD) to small angle X-ray scattering (SAXS and GISAXS). This powerful combination of the D8 ADVANCE or the D8 DISCOVER with the EIGER2 R 500K significantly extends and speeds up the analysis capabilities for XRD users.

"Collaborating from the early stage in the product development, we were able to provide our new EIGER2 R 500K detector with seamless integration into Bruker AXS D8 XRD systems. This is enabling customers to take advantage of cutting-edge detector technology for their laboratory right from the launch", stated Christian
Broennimann, the CEO of DECTRIS.

Dr. Lutz Bruegemann, the Bruker AXS Vice President and General Manager XRD, added, "The coordinated development teams at DECTRIS and Bruker have done a tremendous job. The result is outstanding synergy between the latest HPC detector technology and the most powerful and user-friendly XRD platform on the market, enabling customers to use the new EIGER2 R 500K seamlessly incorporated into our D8 diffraction solutions for many important applications."

**About Bruker Corporation (NASDAQ: BRKR)**

For more than 55 years, Bruker has enabled scientists to make breakthrough discoveries and develop new applications that improve the quality of human life. Bruker's high-performance scientific instruments and high-value analytical and diagnostic solutions enable scientists to explore life and materials at molecular, cellular and microscopic levels. In close cooperation with our customers, Bruker is enabling innovation, productivity and customer success in life science molecular research, in applied and pharma applications, in microscopy, nanoanalysis and industrial applications, as well as in cell biology, preclinical imaging, clinical phenomics and proteomics research, clinical microbiology and molecular pathology research. For more information, visit [www.bruker.com](http://www.bruker.com).

**About DECTRIS Ltd.**

DECTRIS is the global leader in hybrid photon counting (HPC) x-ray detection. Based in Baden, Switzerland, the company has all the required experiences and resources for the design, production and global distribution of its detectors.

The DECTRIS photon counting detectors have transformed basic research at synchrotron light sources, as well as in the laboratory and with industrial X-ray applications. DECTRIS aims to continuously improve the measurement quality, thereby enabling new scientific findings. This pioneering technology is the basis of a broad range of products, all scaled to meet the needs of various applications, crystallography being one of the most important ones. DECTRIS also provides solutions for customer developments in scientific and industrial X-ray detection.

Our proven, highly reliable products increase instrument uptime. Our scalable manufacturing system means shorter lead times and better technical support. DECTRIS is the hybrid photon counting detector company of choice for customers desiring premier performance, plus the confidence of working with a stable, trusted technology partner. For more information, visit [www.dectris.com](http://www.dectris.com).

**Investor Contact:**
Miroslava Minkova
Bruker Head of Investor Relations
T: + (1) 663-3660 x1479
E: miroslava.minkova@bruker.com

Media Contacts:
Dr. Heiko Ress
Bruker AXS Director Marketing Communications
T: +(49) 721 50997-0
E: heiko.ress@bruker.com

Andreas Lechner
DECTRIS Head of Marketing and Communications
T: +(41) 56 500 31 28
E: andreas.lechner@dectris.com


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