JPK Instruments

Nanotechnology for Life Science

JPK Instruments, the pioneers of BioAFM, launch the NanoWizard® 3 BioScience AFM

Berlin, 29th June 2010 *– JPK Instruments, a world-leading manufacturer of nanoanalytic instrumentation in life sciences and soft matter, is pleased to select MicroScience 2010 to announce the launch of their third generation, dedicated BioAFM system, the NanoWizard® 3 BioScience AFM.*

Building relationships with the SPM community and collaborating with users worldwide has enabled JPK to develop powerful and flexible systems. Upgradeability guarantees a safe investment for users and an international team of experienced scientists and developers takes care of service and support.

The core of the new system is HyperDrive™, a SuperResolution AFM fluid imaging technique. With extremely low tip-sample interactions, the sample is not damaged. It is available with the NanoWizard® 3 AFM head and the new Vortis™ high bandwidth, low noise control electronics. The system is extremely stable to drift and have the ability to detect the smallest cantilever deflections enabling some of the most stunning images ever produced in a commercial system.

The NanoWizard® 3 BioScience system design provides the highest AFM performance in liquids and air, integrated with optical microscopy. It comes with outstanding physical and optical access to the sample from front and side, even when head and condenser are in place. The tip-scanning head equipped with a flexure scanner gives highest flexibility for a large variety of different samples.

DirectOverlay™ has set the standard for the way AFM and optical microscopy should be combined to provide complementary information from the sample. Additionally, techniques such as epi-fluorescence, confocal laser scanning microscopy, TIRF, FRET, FCS, FLIM, FRAP, STORM, PALM, STED, spinning disc, etc., give insight about the behavior or location of particular sample features. It is now possible to combine AFM imaging AND force measurements with these optical methods on the same spot at the same time on a routine basis.

The advanced AFM head and new software modes raise the standard of force spectroscopy measurements with NanoWizard® 3. The force RampDesigner™ can be used to create custom force curves while the whole experiment and environment can be controlled through the ExperimentPlanner™ interface. This allows convenient and customized force mapping and force ramp/clamp experiments.

JPK develops, engineers and manufactures instrumentation in Germany to the world-recognised standards of German precision engineering, quality and functionality. The company has a simple philosophy. As CTO, Torsten Jähnke, says - "we have always designed our instrumentation after first listening to users and their challenges. Delivering successful answers for us means no compromises between usability and handling on one side and highest performance on the other side."

For further details of the NanoWizard® 3 and its many applications, please visit the JPK web site, www.jpk.com.

Attachment:

NanoWizard® 3 BioScience AFM setup on Zeiss Axio Observer

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About JPK Instruments AG

JPK Instruments AG is a world leading manufacturer of nanoanalytic instruments that enable unparalleled access at the nanotechnology level. JPK was recognized as Germany's fastest growing nanotechnology company in 2007 and 2008 (Deloitte). The product portfolio is based around atomic force microscopes and optical tweezers for a wide range of applications, from soft matter physics to nano-optics, from surface chemistry to cellular and molecular biology. Leading-edge instruments from JPK are used by the most renowned research institutes across the world. Headquartered in Berlin and with operations in Dresden, Cambridge (UK), Singapore and Tokyo, JPK maintains a global network of distributors and support centers and provides on the spot applications and service support to an ever-growing community of researchers.