

### Nanotechnology for Life Science

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# JPK Instruments launch the NanoWizard®3 NanoOptics AFM System

Berlin, 4th October 2011: – JPK Instruments, a world-leading manufacturer of nanoanalytic instrumentation for research in life sciences and soft matter, continue to expand its family of high performance research systems with the announcement of the availability of the NanoWizard® 3 NanoOptics AFM system.

Over the past decade, optical phenomena on the nanoscale have developed into an exciting area of research. To study light on the nanoscale and especially its interaction with matter, researchers look for methods with nanometer spatial resolution. The combination of Light Microscopy-derived techniques and Scanning Probe Microscopy is a powerful solution. This so-called Near-field Optical Microscopy delivers optical information from sample surfaces with sub-wavelength resolution.

JPK first coupled their NanoWizard® AFM to a Raman spectrometer in 2003 starting a new chapter for SPM and optics. Building strong relationships with the nano-optics community, collaborating with home-builders and users worldwide has enabled JPK to develop more powerful and flexible systems. JPK strongly believes in combining techniques: in particular AFM with optics. This has opened up a field of new applications including TERS/SERS, tip-enhanced fluorescence, nanomanipulation with light, chemical surface analysis and compound detection, metamaterials, developments of optically active components such as dyes, markers, light sources and switches. A large number of user publications underscore the success of this technology approach. Now, JPK introduces their latest platform for AFM and optics – the NanoWizard3 NanoOptics system.

The NanoWizard® NanoOptics head comes with excellent physical and optical access to the sample from top and bottom as well as from front and side, even when the head and condenser are in place. Additionally, it has an integrated port for fiber SNOM applications.

The new system is ready for a broad range of applications from nanoscale optical imaging by aperture and scattering-type SNOM to experiments involving interactions of light with the sample such as absorption, excitation, nonlinear effects and quenching. These include aperture fiber SNOM experiments where an integrated fiber SNOM port in the NanoOptics head and the tuning fork module allows hassle-free integration of techniques.

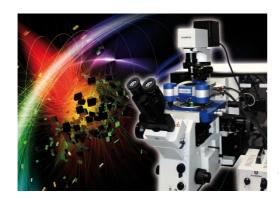
The NanoWizard® 3 NanoOptics AFM can be used in a large number of configurations. The AFM system can be used for many more applications. It is also possible to interface and run different heads such as the ForceRobot® 300 and the CellHesion® 200 or to use the TopViewOptics $^{\text{TM}}$ .

A comprehensive brochure is available which shows many more applications areas with examples from JPK users from around the globe. JPK develop, engineer and manufacture instrumentation in Germany to the world-recognized standards of German precision engineering, quality and functionality. For further details of the NanoWizard® AFM and other products in the JPK family of bio and nanoscale instrumentation, please visit the JPK web site, <a href="www.jpk.com">www.jpk.com</a>, or visit their Facebook page, <a href="www.jpk.com/facebook">www.jpk.com/facebook</a>.



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#### **Attachment:**



JPK launch the NanoWizard® 3 NanoOptics AFM System – new brochure available online

#### **About JPK Instruments**

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 (Germany), Cambridge (UK), Singapore, Tokyo (Japan) and Paris (France), 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.

For further information, please contact JPK directly or their marketing partners, NetDyaLog, who will also provide high resolution images for your use:

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