

## PRODUCT NEWS

### NanoWizard® II – The next generation BioAFM

**Berlin, August 16, 2006** - JPK Instruments introduces the NanoWizard® II, the truly next generation AFM for biological and soft matter applications. The NanoWizard® II represents the new standard in BioAFM, built on the experience of 100 worldwide installed systems since the launch of the NanoWizard® family at the end of 2002 and the feedback provided by our scientific customer base. The NanoWizard® II family provides state-of-the-art AFM functionality in high resolution imaging, force measurements and nano-manipulation/lithography. The custom-made scanning system with capacitive sensors makes the NanoWizard® II the highest performance closed-loop AFM commercially available.

The NanoWizard® II design provides the easiest and safest AFM operation under liquid conditions. A whole range of fluid-cells and temperature control options and the recently introduced electrochemistry cell make it extremely versatile for all kinds of applications where performance and ease of use is key. The improved vapour and liquid protection of the AFM head prevents scanner damage even by inexperienced users.

The patent pending DirectOverlay™ function allows the full integration of optical imaging with the AFM measurements using an automated calibration routine. The NanoWizard® II integrates seamlessly with advanced optical imaging methods provided by inverted optical microscopes like phase contrast, DIC, confocal laser scanning (CLSM), TIRF, FCS, FRAP and FLIM.

The tip-scanning design of the NanoWizard® II is the best choice for the combination with optical imaging and self-developed experimental setups because the sample can remain fixed at all times. Sample scanning AFM designs always suffer from the need to move the sample for the AFM measurement process.

An updated AFM control electronics with up-to-date low noise circuitry, proven eight channel data acquisition, and easy access to all major signals and a new software with a multitude of novel features make the NanoWizard® II system an even more powerful, yet user friendly package. An enhanced image processing software allows the perfect offline data analysis for optical and AFM images, and force curve data.

Powerful accessories like the CellHesion<sup>®</sup> module for measurements of cell mechanics and adhesion and the Tip Assisted Optics (TAO<sup>™</sup>) module for advanced AFM-optical experiments like Tip Enhanced Raman Spectroscopy (TERS) or AFM manipulation with single molecule fluorescence detection provide unique enhanced capabilities to NanoWizard<sup>®</sup> II users.

The NanoWizard<sup>®</sup> II provides highest resolution and stability and is the state-of-the-art solution for advanced applications where high performance AFM and optics meet. This new instrument is powering live cell imaging, single molecule studies, polymer- and nanoparticle research from biophysics and pharmacology to cellular biology.



NanoWizard<sup>®</sup> II: The truly next generation AFM for biological and soft matter applications

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**About JPK Instruments AG:**

JPK Instruments AG is a leading manufacturer of nanoanalytic instruments - particularly atomic force microscope (AFM) systems - for research in life sciences and soft matter. One of Germany's most innovative nanotechnology companies, JPK was among the first to recognize the revolutionary opportunities this new field would open up for biomedical and pharmaceutical research. From the beginning, JPK has tailored its instrument platforms to meet the challenges these areas would face.

JPK has developed powerful state-of-the-art solutions for high-resolution imaging, force measurement, nanomanipulation and nanolithography for life science applications. At the center of JPK's current portfolio are the BioAFM NanoWizard<sup>®</sup>, the CellHesion<sup>®</sup> module (for studying cell adhesion and cell mechanics phenomena), and the TAO module (for use in optical spectroscopy). The secret of JPK's success is its high level of application expertise and its close interaction with leading scientists and research centers in nanotechnology. Founded in 1999, the company is headquartered in Berlin and maintains a global network of distributors and support centers. In 2005 it launched nAmbition GmbH, a Dresden subsidiary specializing in the development of nano instruments for application in molecular medicine and pharmaceutical research.

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