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## **JPK releases the next generation BioAFM, the NanoWizard® 4 BioScience AFM.**

*Berlin, 9<sup>th</sup> July 2015: JPK Instruments, a world-leading manufacturer of nanoanalytic instrumentation for research in life sciences and soft matter, announces the launch of their fourth generation of life science, market-leading AFM technology, the NanoWizard® 4 BioScience AFM.*

Working closely with their user base worldwide, JPK is pleased to announce their fourth generation AFM product, the NanoWizard® 4 BioScience AFM system. The pioneering manufacturers of nano solutions for life scientists have raised the bar in terms of technical performance to deliver a new applications-driven solution for users. It features fast scanning up to 70 Hertz line rate. Translated, this means users can follow dynamic processes with outstanding resolution through an extremely flexible design.

JPK have long been leaders in the combination of fully integrated AFM and light microscopy in liquids. The new system is especially designed for an integration with advanced optical methods (FLIM, FCS, FRET, confocal, Raman, etc.) as well as with Superresolution optics such as SIM, STED or PALM/STORM. This has now been fine-tuned to enable straightforward high resolution quantitative imaging through a new nanomechanical design of the core AFM complemented with the widest range of modes and accessories.

Performing long term experiments on living cells might be considered a challenge. With NanoWizard® 4 having the highest mechanical and thermal stability on an inverted microscope, this has become routine. This is achieved because JPK uses the lowest noise level for all system components such as a closed-loop scanner & deflection detection system. The electronics ensure the highest quality data. This also improves the performance of JPK's QI™ quantitative imaging mode. This is especially important for users working with single molecules, live cells and tissues. Using linear Z-movement and collecting a full set of quantitative data in every pixel allows the extraction of quantitative data such as elasticity, adhesion, dissipation, chemical forces or molecular binding sites. All of this is achieved under perfect environmental control – biological samples imaged in liquids in their optimum physiological conditions.

With more users wishing to perform long-running experiments over prolonged periods yet still being “in contact” with them, JPK has added expanded usability and remote experimental control. The new ExperimentControl™ feature enables the user to both set up and control experiments via the Internet using their PC, tablet or smart phone. This delivers real time data helping users to be more productive in their workflow.

With the life sciences constantly demanding higher performance, the NanoWizard® platform from JPK delivers a unique BioAFM system that has grown to meet these demands. NanoWizard® 4 BioScience AFM is the latest solution and is designed to answer the advanced and complex questions of tomorrow’s research.

There is a new brochure available for downloading now. So, for more details about JPK’s NanoWizard® 4 BioScience AFM system and its applications for the bio & nano sciences, please contact JPK on +49 30726243 500. Alternatively, please visit the web site: [www.jpk.com](http://www.jpk.com) or see more on Facebook: [www.jpk.com/facebook](http://www.jpk.com/facebook) and on You Tube: <http://www.youtube.com/jpkinstruments>.

## Attachment



JPK’s new NanoWizard® 4 BioScience AFM featuring ExperimentControl™ for remote setup and control of the system.

For a high resolution copy of the image, either right click to download, or contact Jezz Leckenby at Talking Science.

## About JPK Instruments

*JPK Instruments AG is a world-leading manufacturer of nanoanalytic instruments - particularly atomic force microscope (AFM) systems and optical tweezers - for a broad range of applications reaching from soft matter physics to nano-optics, from surface chemistry to cell and molecular biology. From its earliest days applying atomic force microscope (AFM) technology, JPK has recognized the opportunities provided by*

*nanotechnology for transforming life sciences and soft matter research. This focus has driven JPK's success in uniting the worlds of nanotechnology tools and life science applications by offering cutting-edge technology and unique applications expertise. Headquartered in Berlin and with direct operations in Dresden, Cambridge (UK), Singapore, Tokyo, Shanghai (China), Paris (France) and Carpinteria (USA), 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.*

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