



NEWS RELEASE

## Bruker Launches New High-Speed AFM System for Life Science Microscopy Applications

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JPK NanoWizard ULTRA Speed 2 Combines Innovative AFM Capabilities for Correlative Microscopy

BERLIN, Jan. 29, 2019 /PRNewswire/ -- Bruker today announced the release of the **JPK NanoWizard® ULTRA Speed 2** advanced AFM system, which combines highest speed and highest resolution AFM with advanced bio-imaging features. Developed in close collaboration with their expanded worldwide user base, the system is the first new product to come out of Bruker's JPK BioAFM business, formed in July 2018 with the acquisition of JPK Instruments AG. With AFM scanning speed of 10 frames per second, true atomic resolution, and advanced life-science capabilities, the **JPK NanoWizard ULTRA Speed 2** raises the bar in technical performance for advanced microscopy applications.

JPK's market-leading expertise in combining AFM with advanced optical techniques, such as phase, DIC, confocal or spinning disc, single-molecule methods (FRET, FCS, TIRF, FLIM, FRAP), super-resolution methods (STED, PALM/STORM, SIM), and such other techniques as Raman or multiphoton microscopy, enables the new system to deliver unprecedented levels of correlative microscopy. The new **JPK NanoWizard ULTRA Speed 2** is also equipped with Bruker's exclusive PeakForce Tapping®, which provides the user with both superior force control and unmatched AFM ease of use for quantitative high-resolution imaging and property mapping. Now, with access to this unique combination of innovative AFM capabilities, researchers can perform experiments on cells and single molecules with multiparametric methods to simultaneously gain new insights into nanoscale dynamics.

"The correlation of high-speed AFM with advanced optics will allow us to follow dynamic processes on molecular and cellular levels in real time," said Professor Pierre-Emmanuel Milhiet, Director of the Center for Structural Biochemistry (CBS) in Montpellier, France. "The combination of a workflow-based software control and ease-of-use PeakForce Tapping could help AFM to become a standard tool in modern life-science research and demonstrates

that JPK as part of Bruker can continue to bring AFM forward in biology."

"As the first new system developed as part of Bruker, it was important to continue our commitment to enabling better science through our BioAFM and optical tweezer product families," added Torsten Jähnke, Bruker's director of the BioAFM business. "The **NanoWizard ULTRA Speed 2** system clearly sets a new benchmark for high-end atomic force microscopy in life science research."

### About the JPK NanoWizard ULTRA Speed 2

The **JPK NanoWizard ULTRA Speed 2** comes standard with PeakForce Tapping®, Bruker's exclusive technology that provides unprecedented high-resolution imaging and extends AFM measurements into a range of samples not previously accessed, particularly for soft biological samples. The new system also incorporates JPK's signature Vortis 2 high-speed, high-performance control electronics. Designed to meet the needs of all user levels, Vortis 2 delivers the lowest noise levels and highest speeds of signal processing. A revolutionary new, workflow-based software graphical user interface (GUI) opens a new chapter in easy-to-use AFM operation. The software provides user guidance and user management modules that allow researchers to focus on their experiments, making the **JPK NanoWizard ULTRA Speed 2** perfect for multi-user environments or imaging facilities. These features are backed by the widest range of accessories on the market, providing the most application and experiment versatility available for users.

### About the JPK BioAFM Business

JPK joined Bruker in July 2018, bringing in-depth expertise in live-cell imaging, cellular mechanics, adhesion, and molecular force measurements, optical trapping, and biological stimulus-response characterization to Bruker's worldwide infrastructure and established instrumentation development and support. The new JPK BioAFM business takes full advantage of the best of both histories to provide microscopy instrumentation for biomolecular and cellular imaging, as well as force measurements on single molecules, cells and tissues. To learn more about Bruker's biological research AFMs, please visit: [www.bruker.com/BioAFM](http://www.bruker.com/BioAFM).

### About Bruker Corporation (Nasdaq: BRKR)

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