FEI's New X-FEG Electron Source Further Extends Lead in Scanning/Transmission Electron Microscope Imaging and Analysis

Higher Brightness and High, Stable Current Improve Resolution, Speed and Sensitivity without Increasing Optical Complexity

HILLSBORO, Ore., Sep 01, 2008 (BUSINESS WIRE) -- FEI Company (Nasdaq:FEIC), a leading provider of atomic-scale imaging and analysis systems, today released its new extreme field emission gun (X-FEG) electron source module for the Titan(TM) family of scanning transmission electron microscopes (S/TEMs). The new technology combines higher brightness -- previously available only with more complex cold field emission -- with the high, ultra-stable current of thermally-assisted field emission. This combination provides significant improvements in resolution, speed, sensitivity and ease of use to the Titan aEUR- the world's most powerful, commercially-available microscope. Initial shipments of the new source are planned for the first quarter of 2009.

"The X-FEG's combination of high-brightness and high-stability beam current provides benefits to users at all levels over the full spectrum of TEM applications," said Dr. Rob Fastenau, FEI's executive vice president, marketing and technology. "For all users, it increases throughput, improves resolution without adding complexity to the optical system, and eliminates cleaning and maintenance procedures required by cold field emitters. For those using spherical aberration correctors and/or monochromators, it provides additional gains in resolution, precision and sensitivity. In the most advanced uses, the X-FEG can be combined with sophisticated experimental technologies, such as chromatic or spherical aberration correctors or low accelerating voltages, to explore the ultimate limits of S/TEM performance."

The new X-FEG is a refinement of the Schottky thermally-assisted field emission technology that FEI pioneered for electron microscopy applications. It provides significant benefits across a broad range of TEM applications. High brightness and spatial coherence improve resolution and contrast in atomic-scale imaging and holography. High-beam current yields faster, more precise analytical results, while smaller convergence angles improve the spatial resolution of the analysis. Beam current stability improves the accuracy and repeatability of lengthy procedures such as focus series image reconstruction, chemical (electron energy loss spectrometry and energy-filtered TEM) and elemental (X-ray) mapping, three-dimensional tomographic reconstruction and automated analysis. Excellent low-voltage performance and high spatial coherence improve contrast and reduce damage in fragile, dose-limited biological materials. Operational simplicity, the absence of tip cleaning (flashing) requirements and extended tip lifetimes (12 months) boost productivity and reduce cost of ownership in process control applications.

The X-FEG can be fitted to any Titan TEM and provides benefits above and beyond those of correctors and monochromators already installed.

About FEI Company

FEI (Nasdaq: FEIC) is the world leader in pioneering technologies and applications that deliver imaging solutions for 3D characterization, analysis and modification/prototyping with resolutions down to the sub-A...ngstrAm level. Our customers, working in advanced research and manufacturing, are supported by field-experienced applications specialists. They have open access to FEI's prestigious global user network so they can succeed in accelerating nanoscale discovery and contribute to better living through new product commercialization. FEI's NanoPorts in North America, Europe and Asia provide centers of technical excellence where our world-class community of customers and specialists collaborate on the ongoing development of new ideas and innovative solutions. FEI has sales and service operations in more than 50 countries around the world. More information can be found at: www.fei.com.

FEI Safe Harbor Statement

This press release contains forward-looking statements about the introduction of the X_FEG electron source module and its planned shipping schedule. Factors that could affect these forward-looking statements include, but are not limited to the failure of the product or technology to perform as expected and achieve anticipated results, unexpected technical problems, the company's inability to manufacture the product, problems with suppliers, and completion of final engineering and product introduction. Please also refer to the company's Form 10-K, Forms 10-Q, Forms 8-K and other filings with the U.S. Securities and Exchange Commission for additional information on these factors and other factors that could cause actual results to differ materially from the forward-looking statements. FEI assumes no duty to update any forward- looking statements.

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