HITACHI
Inspire the Next

M&M 2019 Booth #1438

Learn about New Technologies & Solutions from Hitachi!

Walk in for Learning Labs. Pre-registration required for Lunch & Learn and Vendor Tutorials. For Lunch & Learn sessions, sign up in advance by emailing us at microscopy@hitachi-hta.com, or onsite at the Hitachi booth (#1438). For Vendor Tutorials, sign up at the MSA Mega Booth.

Monday, August 5th

Time	Session	Details
4:30 PM-5:15 PM	Learning Lab	Introducing the SU3900: A Large, Revolutionary Addition to Hitachi's VP-SEM Portfolio (Presenter: William K. Podrazky, Application Engineer II) Hitachi High-Technologies' newest addition to our VP-SEM portfolio, the *SU3900*, will be showcased in this presentation. The SU3900 harmonizes a large multipurpose chamber with 20 available ports to accommodate oversized as well as heavy samples for efficient observation, microanalysis, and dynamic *in-situ* approaches. Additionally, many technologies are integrated directly into the user interface, enabling operators of all experience levels to maximize throughput and data quality with minimal time investment.

Tuesday, August 6th: "It's All About Ions!"

Time	Session	Details
10:15 AM-11:00 AM	Learning Lab	An Evolution in Sample Preparation by the Application of Broad Ion Milling (Presenter: Jamil J. Clarke, Sr. Application Engineer) A discussion about how and why sample preparation is important along with broad ion beam concepts and principles that are currently innovating the EM world. Case studies demonstrating workflow solutions for obtaining almost 1:1 quality that rivals non-destructive methods for analysis are presented.
12:00 PM-1:00 PM	LUNCH & LEARN*	Taking You from Images to Answers: Automated Particle, Fiber, and Phase Metrology (Presenters: Jeff Knipe of Media Cybernetics and Jamil J. Clarke, Sr. Application Engineer) You are invited to "Lunch and Learn" with us at the Hitachi Booth to discover how to take your images to answers through advanced image processing. Automated applications such as particle size analysis, segmentation, and 3-dimensional volumetric rendering reveals information beyond traditional microscopy techniques for applications in numerous sciences. Image-Pro and Hitachi deliver an integrated solution with macro-driven customizability for automated routines on the latest Hitachi EM/IM platforms.
4:30 PM-5:15 PM	Learning Lab	Exploring Advancements in FIB-SEM Technologies (Presenter: Jamil J. Clarke, Sr. Application Engineer) A sneak peak of the latest FIB-SEM developments including an introduction of the ultimate Ethos NX5000 FIB-SEM, highlighting revolutionary applications in double- and triple-beam configurations for next-generation advanced material processing! Come learn how Hitachi FIB-SEMs can advance your lab!
5:45 PM-6:45 PM	Vendor Tutorial*	Photons and Electrons in Harmony: A New SEM-based STEM Imaging Technology (Presenters: Kotaro Hosoya, Product Design Manager, and Atsushi Muto, Assistant Manager of Applications) SEM-based STEM (Scanning Transmission Electron Microscopy) is an approach well-suited for polymer, material, and biological applications due to the high inherent scattering effect in addition to damage mitigation from the utilization of lower accelerating voltages. Experience another innovative development by Hitachi—an advanced scintillator-based STEM holder that utilizes a photometric signal detector to obtain high-resolution, low-noise transmitted images.

Schedule subject to change without notice. Please visit the Hitachi booth for the most-recent schedule. (*Pre-registration required for these event.)

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Wednesday, August 7th: "Energy and Environment"		
10:15 AM-11:00 AM	Learning Lab	A Wolf in Sheep's Clothing: The Hidden Talents of the Amazing SU9000 Low-Voltage SEM/STEM (Presenter: Ian H. Cotton, Global Marketing Executive) The Hitachi SU9000 has been used to provide low-voltage SE and BSE images as well as very-high-resolution bright-field and dark-field STEM images from 30 kV down to voltages as low as 10 kV for STEM, and 500 V for SE imaging. This significantly reduces radiation damage caused by the electron beam and allows the user to obtain high-contrast images of specimens of TEM-prepared materials.
12:00 PM-1:00 PM	LUNCH & LEARN*	Ultimate Analysis with Hitachi SU7000 UHR-FE-SEM and Bruker Microanalysis Systems (Presenters: Dr. Andrew Menzies, Application Scientist of Bruker Nano Analytics, and Atsushi Muto, Assistant Manager of Applications) The SU7000 is Hitachi's newest UHR Schottky Field-Emission Variable-Pressure SEM. Simultaneous imaging up to 6 signals, in-column deceleration, unique detector design, and a 6-mm analytical working distance optimized for all detectors make this powerful characterization tool and further analytical capability can be granted by working with latest microanalysis systems. In this session we will demonstrate the benefits of the SU7000 imaging and analysis capability with Bruker microanalysis solutions.
4:30 PM-5:15 PM	Learning Lab	Hitachi In-Situ Solutions: Advanced MEMS Devices for Correlative Studies (Presenter: Stas Dogel, Nano Accsessory Product Group Manager) Due to their small size and high level of customization, MEMS devices enable unique capabilities in the field of *in-situ* electron microscopy. By utilizing MEMS technology, Hitachi in collaboration with Norcada continues to advance various types of *in-situ* holders and techniques. In this talk we will introduce our latest developments in *in-situ* holders and devices for SEM/TEM which will take your research to the next level.
5:45 PM-6:45 PM	Vendor Tutorial*	SPARKLE II Chamber Cleaning System (Presenter: David Hoyle, Technology Manager) SPARKLE II overcomes the short comings of SPARKLE to better clean both the specimen chamber and in-situ samples in a very gentle way. With a unique patented process of electron desorption it allows the user freedom to clean the system or samples for a better operating experience.

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