

Advanced Materials Metrology for Next-Generation Technologies

Connecting Science, Standards, and Innovation in
Advanced Materials Metrology



September 2, 2026
9:00 – 16:50

Registration from 8:30



Industrial Technology
Research Institute (ITRI)
Hsinchu Taiwan
Building 1, Room 802



Expert form National
Metrology Institutes,
Academia, and Industry

ABOUT THE WORKSHOP

As next-generation technologies continue to push the limits of materials performance, device scaling, and system integration, the demands for advanced, precise, and high-resolution metrology has become increasingly critical. This workshop brings together leading experts from academia, national metrology institutes, and industry to explore cutting-edge measurement methodologies and address the key challenges and demands for shaping the future landscape of advanced materials metrology.

TECHNICAL TOPICS



Quantum Material Metrology

- Atomic-Scale Defect •Quantum Sensing
- 2D /Topological Materials & Superconductors
- Reference Standards



Semiconductor Material Metrology

- 2D Materials • Thin Films • Interfaces
- In-Line Metrology



Cross-domain & Emerging Materials

- Green Energy •Additive Manufacturing
- AI-assisted Metrology

PRELIMINARY AGENDA

Time	Content
8:30-9:00	Registration
9:00-9:10	Opening Remarks
9:10-12:00	4 Keynote and Invited Talks
12:00-13:20	Lunch
13:30-16:50	6 Keynote and Invited Talks

*The preliminary agenda is subject to change.

REGISTRATION INFORMATION

Register For Free Now!



CONTACT INFORMATION

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Registration Deadline

August 26, 2026

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PRELIMINARY AGENDA

Time	Topic	Speaker
08:30-09:00	Registration	
09:00-09:10	Opening remark	Dr. Wei-En Fu CMS/ITRI
09:10-09:55	Engineering Quantum Electronic and Spin Transport in Low-Dimensional Materials through Geometry and Symmetry	Dr. Ching-Hao Chang NCKU
09:55-10:40	TBD	TBD
10:40-11:00	Break	
11:00-11:30	Standardization activities on materials for quantum	Dr. JeongWon Kim KRISS
11:30-12:00	Advancing Focused Ion Beam Technologies: Helium-Ion Beam Engineering of van der Waals Materials from Functional Defects to Quantum Nanostructures	Dr. Braulio Archanjo INMETRO
12:00-13:30	Lunch	
13:30-14:00	Morphological and Chemical Characterization of Mesoporous Metal Oxide Thin Films	Dr. Vasile-Dan Hodoroaba BAM
14:00-14:30	TBD	Dr. Elisabeth Mansfield NIST
14:30-15:00	TBD	Adam Chuang Wooptix
15:00-15:20	Break	
15:20-15:50	Diblock Copolymers' Periodicity as a Universal Measurand for Traceable Nanoscale Dimensional Metrology	Dr. Luca Boarino INRIM
15:50-16:20	The Critical Role of Advanced Microscopic Imaging Technologies in Energy and 2D Materials R&D	Dr. Roger Liu ZEISS
16:20-16:50	Wafer Dual Beam SEM-FIB and Lamella Preparation for Inline Applications.	Nimrod Shuall Thermo Fisher Scientific

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