

2025 Advanced Materials Characterization Workshop

June 3 and 4

Materials Research Laboratory – University of Illinois at Urbana-Champaign Registration required – only \$80

http://go.illinois.edu/amc2025

	Tuesday, June 3
8 am	Registration and coffee / breakfast (MRL 2 nd floor Main Hallway)
8:40	Welcome and introduction to MRL (ESB 190)
9	Tutorial 1: Rutherford backscattering analysis Tim Spila, MRL, University of Illinois
9:30	Tutorial 2: Optical and spectroscopic characterization (I) Julio Soares, MRL, University of Illinois
10	Coffee Break
10:30	Tutorial 3: Optical and spectroscopic characterization (II) Julio Soares, MRL, University of Illinois
11	Tutorial 4: Atomic force microscopy Kathy Walsh, MRL, University of Illinois
12	Lunch
1 pm	Using ultrafast imaging to characterize materials from the micron to wafer scale Torben Purz, Monstr Sense Technologies
1:20	Lab ready instrumentation from Quantum Design Darius Choksy, Quantum Design
1:40	Advances in SPM probes and applications - a perspective view Ami Chand, AppNano
2	Tutorial 5: Macro scale material characterization for hard and soft materials David Ehrhardt, MRL, University of Illinois
2:40	Coffee Break
3:10	Infrared correlation nanoscopy for material characterization with 20nm spatial resolution Tobias Gokus, Attocube
3:30	Tutorial 6: Nanomechanical characterization Kathy Walsh, MRL, University of Illinois
4	Dimension Nexus AFM: new high performance, smaller footprint AFM from Bruker John Thornton, Bruker
4:20-5:20	Tutorial 7: X-ray analysis Juan Lopez, MRL, University of Illinois
5:30–6:30	Reception and networking (MRL 2 nd floor Main Hallway)



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Wednesday, June 4 미생분형	
8 am	Coffee / Breakfast (MRL 2 nd floor)
8:30	Tutorial 8: Atom probe tomography Tim Spila, MRL, University of Illinois
8:50	Tutorial 9: Scanning electron microscopy & focused ion beam Jade Wang, MRL, University of Illinois
9:40	Pushing the boundaries of microanalysis in the SEM with the BEX technique David Richards, Oxford Instruments
10	Coffee Break
10:30	Tutorial 10: Characterization of soft materials and polymers Roddel Remy, MRL, University of Illinois
11:20	Using rotational and capillary rheometry to characterize polymer blends Philip Rolfe, Netzsch
11:40	How I know where my sorbate goes; advanced dynamic vapor sorption techniques David Bernick, Surface Measurement Systems
12	Lunch
1	Tutorial 11: A guide to electrical characterization of materials Mrinal Kanti Hota, MRL, University of Illinois
1:30	Tutorial 12: X-ray photoelectron spectroscopy Rick Haasch, MRL, University of Illinois
2:20	Tutorial 13: Transmission electron microscopy (I) Kristen Flatt, MRL, University of Illinois
2:40	Coffee Break
3:10	Tutorial 14: Biomaterials and cryo-EM Kristen Flatt, MRL, University of Illinois
3:45-4:25	Tutorial 15: Transmission electron microscopy (II) Honghui Zhou, MRL, University of Illinois
4:45–5:30	MRL lab tours (meet at MRL 2 nd floor Main Hallway)

All presentations are in Room 190 ESB (Engineering Sciences Building Auditorium)

Vendors' exhibit show: June 3, 9 am-6 pm, and June 4, 9 am-3 pm on the MRL 2nd floor main hallway. <u>Platinum sponsors</u>: AppNano, Attocube, Bruker, Monstr Sense Technologies, Netzsch, Oxford Instruments, Quantum Design, Surface Measurement Systems, Teledyne Instruments. <u>Sponsors</u>: Avantor-VWR, DMS, Gatan EDAX, JEOL, Hitachi, Kratos, KJ Lesker, Montana Instruments, Park Systems, Physical Electronics, Protochips, Samco, Tescan, ThermoFisher, Thomas Scientific Leica.

For registration go to go.illinois.edu/AMC2025 or scan the QR code above