

AMC 2023

2023 Advanced Materials Characterization Workshop

June 6 and 7

Materials Research Laboratory – University of Illinois at Urbana-Champaign

Registration required – only \$80

<http://go.illinois.edu/amc2023>

Tuesday, June 6	
8 am	Registration and coffee / breakfast (MRL 2 nd floor Main Hallway)
8:40	Welcome and introduction to MRL (ESB 190)
9	<i>Tutorial 1: Atom probe tomography</i> <i>Tim Spila, MRL, University of Illinois</i>
9:30	<i>Tutorial 2: Optical and spectroscopic characterization (I)</i> <i>Julio Soares, MRL, University of Illinois</i>
10	Coffee Break
10:30	<i>Tutorial 3: Optical and spectroscopic characterization (II)</i> <i>Julio Soares, MRL, University of Illinois</i>
11	<i>Tutorial 4: Atomic force microscopy</i> <i>Kathy Walsh, MRL, University of Illinois</i>
12	Lunch
1 pm	"This is going to be rough" <i>Luke Vajdic, Keyence</i>
1:20	"Ultra-high purity conditions for nitride growth with low Oxygen content by plasma-enhanced atomic layer deposition" <i>Sean Armstrong, Kurt J. Lesker Co.</i>
1:40	<i>Tutorial 5: X-ray photoelectron spectroscopy</i> <i>Rick Haasch, MRL, University of Illinois</i>
2:30	Coffee Break
3:00	"Advanced Atomic Force Microscopy for Semiconductor, Battery, and Ferroelectrics Applications" <i>Ted Limpoco, Oxford Instruments</i>
3:20	"A novel ion source for Lithium-ion microscopy and 3D tomography" <i>Joseph Klingfus, Raith</i>
3:40	"Make, look, measure: scientific instrumentation from Quantum Design" <i>Rick Hapanowicz, Quantum Design</i>
4	<i>Tutorial 6: X-ray analysis</i> <i>Mauro Sardela, MRL, University of Illinois</i>
5 –6:30	Reception and networking (MRL 2 nd floor Main Hallway)

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

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Wednesday, June 7	
8 am	Coffee / Breakfast (MRL 2 nd floor)
8:30	<i>Tutorial 7: Rutherford backscattering</i> <i>Tim Spila, MRL, University of Illinois</i>
9	Tutorial 8: Scanning electron microscopy & focused ion beam <i>Jade Wang, MRL, University of Illinois</i>
10	Coffee Break
10:30	“NanoSIMS: A Technique for Advanced Energy Materials Characterization” <i>Matt Pietrucha, CAMECA</i>
10:50	<i>Tutorial 9: Nanoindentation</i> <i>Jessica Spear, MRL, University of Illinois</i>
11:20	<i>Tutorial 10: “Transmission electron microscopy (I)”</i> <i>Wacek Swiech, MRL, University of Illinois</i>
12	Lunch
1 pm	“The latest dual beam technology advancements in 2023” <i>Rick Passey, ThermoFisher</i>
1:20	<i>Tutorial 11: “Characterization of soft materials and polymers”</i> <i>Roddel Remy, MRL, University of Illinois</i>
2:10	Coffee Break
2:50	<i>Tutorial 12: Biomaterials and cryo-EM</i> <i>Kristen Flatt, MRL, University of Illinois</i>
3:35	<i>Tutorial 13: Transmission electron microscopy (II)</i> <i>Honghui Zhou, MRL, University of Illinois</i>
4 – 5	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 6, 9 am-6 pm, and June 7, 9 am-3 pm on the MRL 2nd floor main hallway.

Platinum sponsors: CAMECA, Keyence, Kurt J Lesker, Oxford, Quantum Design, Raith, ThermoFisher.

Sponsors: JA Woollam, JEOL, Rigaku, Samco, Teledyne/Princeton, Tescan.



Go to <http://go.illinois.edu/amc2023> or scan this QR code for registration and more details.