

## Hourly Use Rates for the Material Research Laboratory Facilities

*Rates for Private Sector companies and researchers.*

If you have any questions, please contact the MRL Business Office at 217-333-1372. Rates valid from January 1, 2026 and are subject to change by ILLINOIS per terms agreed upon in LICENSEE's usage contract.

<b>Center for Excellence in Soft Materials</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Malvern Zetasizer	Particle Size and Zeta Potential Measurements	\$130	\$220
Metrohm 915 KF Ti-Touch	Volumetric Karl Fischer Titration	\$130	\$220
Metrohm 917 Coulometer	Coulometric Karl Fischer Titration	\$130	\$220
Nanoparticle tracking NS300	Nanoparticle tracking analysis	\$130	\$220
Novocontrol C47 Analyzer	Dielectric, Conductivity and Impedance Spectrometer	\$130	\$220
Q50-TGA	Thermogravimetric Analysis	\$130	\$220
Q800-DMA	Dynamic Mechanical Analysis	\$130	\$220
Shimadzu DTA-50	Differential Thermal Analysis	\$130	\$220
TA DHR-3 Rheometer	Discovery Hybrid Rheometer	\$130	\$220
TA DSC 2500	Differential Scanning Calorimetry	\$130	\$220
TGA-MS Netzsch TG309-QMS403	Thermogravimetric Analysis with Mass Spectrometry	\$140	\$230
Tosoh EcoSEC GPC	Gel Permeation Chromatography	\$130	\$220
<b>Laser and Spectroscopy Facility</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Agilent CARY 5000	Spectrophotometry	\$160	\$250
Custom Experiment	Custom Laser Experiments	\$160	\$250
Ellipsometer-RC2-JAWoollam	Spectroscopic and Mueller matrix ellipsometry	\$170	\$260
FTIR-Microscope-Bruker	Fourier Transform Infrared Spectroscopy	\$160	\$250
Gaertner Ellipsometer	Ellipsometry	\$160	\$250
Horiba Xplora-Nano TERS-TEPL	Tip Enhanced Raman and PL Spectroscopy	\$160	\$250
Inspire OPO Laser	Time-Domain Thermoreflectance, Custom Laser Experiments	\$160	\$250
LIBS - Keyence EA-300	Laser Induced Breakdown Spectroscopy	\$160	\$250
Keyence VK-X1000	Optical Profiler	\$180	\$270
MOKE - steady state	Magneto optical Kerr Effect mapping	\$160	\$250
Montana Cryo Station	Closed He Cycle Optical Cryo Station	\$70	\$160
Nanophoton Raman 11	Raman Spectroscopy/Microscopy	\$160	\$250
Neaspec IR AFM	Tip Enhanced Infrared Spectroscopy	\$160	\$250
Newport Solar Simulator	Custom Experiments	\$160	\$250
Nicolet Nexus 670 FTIR	Fourier Transform Infrared Spectroscopy	\$160	\$250
OL 750 Spectroradiometer	Spectroradiometry	\$160	\$250
Oxford Cryo Station	Closed He Cycle Cryo Station	\$70	\$160
Photoluminescence	Photoluminescence/Fluorescence	\$160	\$250
Quantum Diamond Microscope	N-vacancy magnetometry	\$160	\$250
Rame-Hart Contact Angle	Contact Angle Goniometry	\$160	\$250
Resonant Raman-PL	Resonant Raman and photoluminescence	\$160	\$250
SLM-ISS Fluorometer	Photoluminescence/Fluorescence	\$160	\$250
Solar Simulator - Oriel	Solar Simulator illuminator source	\$160	\$250
Thermo-Nicolet Is-50 FTIR	Fourier-Transform IR spectroscopy	\$160	\$250
Time Resolved PL	Photoluminescence/Fluorescence	\$160	\$250
Tsunami Ti-Sapphire Laser	Time-Domain Thermoreflectance	\$160	\$250
Tsunami Ti-Sapphire Laser 2	Time-Domain Thermoreflectance	\$160	\$250
Two Photon Microscopy	Optical Microscopy	\$160	\$250
Varian Cary5G UV-VIS-NIR	Spectrophotometry	\$160	\$250
Witec Alpha NSOM	Near Field Scanning Optical Microscopy	\$160	\$250
Woollam VAS Ellipsometer	Spectroscopic Ellipsometry	\$160	\$250

Micro & Nano-Fabrication Facility			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
ADT 7122 Wafer Dicer	Automated sample dicer	\$160	\$250
AJA Sputter Coater	Sputter Coater	\$160	\$250
AJA Sputter Coater 2	Sputter Coater	\$160	\$250
AJA Sputter Coater 3	Sputter Coater	\$170	\$260
AJA Sputter Coater 4	Sputter Coater	\$170	\$260
Atomic Layer Deposition	Atomic Layer Deposition	\$160	\$250
Atomic Layer Deposition 2	Atomic Layer Deposition	\$160	\$250
Ball Bonder	Ball Bonder	\$160	\$250
Cleanroom	Cleanroom	\$160	\$250
CM Furnace	Furnace	\$70	\$160
DC Sputtering IQUIST AJA 2200	Sputter Coater	\$0	\$0
Desert Cryo Probe Station	Probe Station	\$160	\$250
E-beam Evaporator 1	Electron Beam Evaporation	\$160	\$250
E-beam Evaporator 2	Electron Beam Evaporation	\$160	\$250
E-beam Evaporator 4	Electron Beam Evaporation	\$170	\$260
Graphene Furnace	Furnace for the growth of carbon nanotubes and graphene layers	\$70	\$160
Harrick Plasma Cleaner	Plasma Cleaner	\$160	\$250
Heidelberg Maskless Writer	Maskless wafer aligner	\$170	\$260
Hydrogen Vacuum Furnace	Furnace	\$70	\$160
Ion Mill Evaporator	Ion Mill & Thermal Evaporator	\$160	\$250
Jandel 4 Point Probe	Four point probe	\$160	\$250
Lapping polishing bonding PM6	Precision Lapping and Polishing with Wafer Bonding	\$164	\$254
Lindberg 3 Zone Furnace-2 inch	Furnace	\$70	\$160
March RIE2	Reactive Ion Etcher for polymer samples	\$160	\$250
Mitutoyo Microscope	Optical Microscope	\$160	\$250
MTI Furnace - 2 inch	Furnace	\$70	\$160
Nanomaster RIE	Reactive Ion Etcher for polymer samples	\$160	\$250
Nanoscribe 3D Printer	Laser lithography 3D printer	\$165	\$255
Olympus Microscope	Optical Microscope	\$160	\$250
Oven-Vacuum	Oven	\$70	\$160
Parylene Coater	Parylene Deposition - SCS Labcotter 2	\$160	\$250
PEALD Lesker 150 LX	Plasma Enhanced Atomic Layer Deposition	\$160	\$250
PECVD 2	Plasma Enhanced Chemical Vapor Deposition	\$160	\$250
Probe Station	Probe Station	\$160	\$250
Raith EBPG5150	Electron Beam Lithography	\$210	\$300
Raith e-Line	Electron Beam Lithography	\$160	\$250
RaithPrep	Cleanroom	\$160	\$250
Reactor Vacuum Furnace	Furnace	\$70	\$160
RIE - Plasma-Therm	Reactive Ion Etcher	\$160	\$250
RIE - SAMCO 10NR	Reactive Ion Etcher	\$160	\$250
RTA Furnace	Furnace	\$160	\$250
RTA Furnace-MTI 1200X-4-RTP	Furnace	\$160	\$250
Suss MJB3 - Deep UV	Mask Aligner - Deep UV	\$0	\$210
Suss MJB3 - Mask Aligner	Mask Aligner	\$0	\$210
Suss MJB4 - Mask Aligner	Mask Aligner	\$0	\$210
Thermal Evaporator	Thermal Evaporation	\$160	\$250
Tube Furnace - 6 inch	Furnace	\$70	\$160
UV-Ozone Cleaner	UV-Ozone substrate cleaning tool	\$0	\$90
Wedge Bonder	Wedge Bonder	\$160	\$250
Westbond Bonder	Wire Bonder	\$160	\$250

\*\* Deposition of gold, platinum or palladium incurs an additional charge of \$4 per every 10 nm deposited or fraction thereof.

<b>Microscopy-Scanning Probe</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
AFM Offline Analysis	AFM Offline Analysis	\$2	\$92
AFM Quesant	Atomic Force Microscopy	\$70	\$160
Asylum AFM 1	Atomic Force Microscopy	\$140	\$230
Asylum Cypher AFM	Atomic Force Microscopy/High Resolution	\$160	\$250
Asylum MFP-3D-Bio AFM	Atomic Force Microscopy for biological materials	\$150	\$240
Dektak 3030	Surface Profilometry	\$130	\$220
Hysitron Tip	Nanoindentation	\$70	\$160
Hysitron Tribolindenter	Nanoindentation	\$130	\$220
Leitz Microhardness	Microhardness tester	\$70	\$160
Molecular Vista PiFM-Raman	Photo-induced Force Microscopy	\$160	\$250
Piuma Nanoindenter	Nanoindentation	\$130	\$220
<b>Microscopy-Scanning Electron</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
HELIOS 600i FIB	Scanning Electron/Focused Ion Beam Microscopy	\$190	\$280
Hitachi S4800 SEM	Scanning Electron Microscopy/High Resolution	\$180	\$270
JEOL 7000F SEM	Scanning Electron Microscopy/Analytical SEM	\$180	\$270
Scios 2 FIB	Scanning Electron/Focused Ion Beam Microscopy	\$190	\$280
Thermo Axia ChemSEM	Scanning Electron Microscopy/Low Vacuum	\$180	\$270
<b>Microscopy-Transmission Electron</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Hitachi 9500	Transmission Electron Microscopy	\$180	\$270
JEOL 1400 TEM	Transmission Electron Microscopy	\$180	\$270
JEOL 2010 LaB6	Transmission Electron Microscopy	\$170	\$260
JEOL 2100 Cryo TEM	Transmission Electron Microscopy	\$170	\$260
Thermo Talos F200X TEM-STEM	Transmission Electron Microscopy	\$210	\$300
Thermo Themis Z TEM-STEM	(Scanning) Transmission Electron Microscopy/Analytical	\$220	\$310
ThermoFisher Glacios Cryo-TEM	Cryo-TEM for SPA, tomography and micro-ED	\$220	\$310
<b>Support Equipment</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Allied Multiprep	TEM sample preparation	\$70	\$160
Carbon Rod Coater	SEM Carbon Coater	\$70	\$160
FEI Vitrobot	Cryo-plunge for TEM sample preparation	\$70	\$160
FEI Mark IV Vitrobot	Cryo-plunge for TEM sample preparation	\$70	\$160
Gatan CryoPIPS	Cryo-Ion Miller for TEM sample preparation	\$70	\$160
Gatan PECS II	Ion Miller for SEM sample preparation	\$70	\$160
Leica EM UC6 Microtome	Microtome for TEM sample preparation	\$70	\$160
PicoIndenter	Nanoindentation	\$165	\$255
Princeton WS-25 Wire Saw	Wire Saw - High Precision	\$70	\$160
SEM Sputter Coater 1	SEM Sputter Coater	\$70	\$160
SEM Sputter Coater 2	SEM Sputter Coater	\$70	\$160
Tergeo EM Plasma Cleaner	Plasma Cleaner for TEM sample preparation	\$70	\$160
Vibratory Polisher 1	Vibratory Polisher	\$70	\$160
Vibratory Polisher 2	Vibratory Polisher	\$70	\$160

<b>Physical Property Measurement</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
QD MPMS3 SQUID	Magnetic Property Measurement System	\$70	\$160
QD MPMS3 SQUID B	Magnetic Property Measurement System	\$70	\$160
QD Opticool	Optical Cryostat	\$70	\$160
QD PPMS	Physical Property Measurement System	\$71	\$161
QD PPMS B	Physical Property Measurement System	\$71	\$161
<b>Surface Analysis</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Cameca LEAP 5000XS APT	Local Electrode Atom Probe Tomography	\$200	\$290
Kratos Supra XPS	X-Ray Photoelectron Spectroscopy / Imaging and Depth Profiling	\$170	\$260
NEC Pelletron	Ion Accelerator/Rutherford Backscattering Spectroscopy	\$160	\$250
PEI Trift-III TOF-SIMS	Secondary Ion Mass Spectroscopy/Time-of-Flight	\$160	\$250
<b>X-ray Analysis</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Bruker D8 Advance	X-ray diffraction with high-temperature stage	\$170	\$260
Dexco Laue	X-ray Diffraction/Laue	\$160	\$250
PANalytical XPert	High-resolution X-ray diffraction and reflectometry	\$160	\$250
SAXS	X-Ray scattering: SAXS, WAXS, GI-SAXS and GI-WAXS	\$160	\$250
Shimadzu EDXRF	X-Ray Fluorescence	\$160	\$250
Siemens-Bruker D5000 XRD	X-Ray Diffraction/Powder	\$160	\$250
XRF-WDXRF Rigaku Supermini200	Wavelength-dispersive x-ray fluorescence spectroscopy	\$160	\$250
<b>MRL Carver BioMaker Lab</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Autoclave	Sterilization	\$50	\$140
Biosafety Cabinet-Room 0014	Biosafety Cabinet	\$0	\$90
Biosafety Cabinet-Room 0015	Biosafety Cabinet	\$0	\$90
CarverBioMakerLab	Lab suite access for sample prep and imaging	\$20	\$110
Cellink BioX 3D bioplotter	3D printing (tissue, cell, etc. using bioinks)	\$160	\$250
Fisher Gravity Incubator	Gravity Incubator	\$0	\$90
Fisher Isotemp Incubator	Isotemperature Incubator	\$0	\$90
GESIM nanoplotter	3D printing for cell spotting	\$160	\$250
Microfluidics flow control	Optional flow control for the printer	\$50	\$140
Microfluidics printer	3D printing of microfluidics structures	\$160	\$250
MTI electrospinner	3D printing of nanofibers	\$160	\$250
Nanodrop	DNA, RNA or protein concentration measurement	\$70	\$160
Optima LE-80 Ultracentrifuge	Ultracentrifuge	\$70	\$160
Polarized Optical Microscope	Optical Microscopy	\$160	\$250
Thermo CO2 incubator-bottom*	CO2 incubator	\$20	\$110
Thermo CO2 incubator-top*	CO2 incubator	\$20	\$110
Zeiss Axio-Inverted Microscope	Fluorescence Microscopy	\$160	\$250
Zeiss LIVE7 Confocal Microscope	Fluorescence Confocal Microscopy	\$160	\$250

\*Maximum charge of 2 hours per day of usage.

<b>Biomaterial Services Lab</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Bio-BioSEM	Bio SEM Prep	N/A	\$78
Bio-Embed	Embedding & Deparaffinization	N/A	\$78
Bio-EMScopeVM	VDL Scope Tech Time	N/A	\$93
Bio-LMSect	Trim & LM Sectioning	N/A	\$78
Bio-NegDevelop	Negative Development	N/A	\$95
Bio-NegScan	Negative Scanning	N/A	\$80
Bio-NegStain	Negative Staining & Grids	N/A	\$80
Bio-OptoMicro	Optical Camera Tech Time	N/A	\$220
Bio-TEM Sect	Trim & TEM Sectioning	N/A	\$94
Reichart Ultracut	Microtome for TEM sample preparation	\$70	\$160
<b>AMTEL-Advanced Materials Testing and Evaluation Laboratory</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Servo-hydraulic 1*	Uniaxial testing	\$200	\$290
Servo-hydraulic 2*	Uniaxial testing	\$200	\$290
Servo-hydraulic 3*	Uniaxial testing	\$200	\$290
Servo-hydraulic 4*	Uniaxial testing	\$200	\$290
Servo-hydraulic 5*	Uniaxial testing	\$200	\$290
Servo-hydraulic 6-Bi-Axial*	Bi axial testing (axial and torsion)	\$300	\$390
Electro-Mechanical 1*	Uniaxial testing	\$200	\$290
Electro-Mechanical 2*	Uniaxial testing	\$200	\$290
Electro-Mechanical 3*	Uniaxial testing	\$200	\$290
Thermo-Mechanical 1*	Uniaxial testing with combined thermal loading	\$300	\$390
Thermo-Mechanical 2*	Uniaxial testing with combined thermal loading	\$300	\$390
Thermo-Mechanical 3*	Uniaxial testing with combined thermal loading	\$300	\$390
Thermo-Mechanical 4*	Uniaxial testing with combined thermal loading	\$300	\$390
Thermo-Mechanical 5*	Uniaxial testing with combined thermal loading	\$300	\$390
Split-Hopkinson Bar*	High strain rate material testing	\$275	\$365
Creep Stand*	Temperature dependent creep testing	\$100	\$190
Rotating Bending*	Rotating bending high cycle fatigue testing	\$100	\$190
Dynamic Mechanical Analysis*	Dynamic mechanical analysis	\$200	\$290
High Speed - Thermal Camera*	High speed and/or thermal imaging	\$100	\$190
Strain - Thermal Acquisition Box*	Additional strain, thermocouple, analog input data acquisition	\$100	\$190
3D Digital Image Correlation*	Calibration, acquisition, and/or analysis of 3D surface coordinates	\$100	\$190
100lbf Electrodynamic Shaker*	Electrodynamic Shaker	\$200	\$290
Laser vibrometer*	Non-contact vibration measurements of a surface	\$100	\$190
Paint Booth	Speckle painting for digital image correlation sample preparation	\$12	\$102
Laser Engraver	Engraving for digital image correlation sample preparation	\$12	\$102
Sand Blasting	Sandblasting for digital image correlation sample preparation	\$12	\$102
Wet-Dry Sander 1	Polishing for digital image correlation sample preparation	\$12	\$102
Wet-Dry Sander 2	Polishing for digital image correlation sample preparation	\$12	\$102
Vibration Polisher	Polishing for high magnification digital image correlation sample preparation	\$12	\$102
Pico Saw	Diamond blade wafer saw for sample preparation	\$24	\$114
Ultrasonic Bath	Ultrasonic bath for sample preparation	\$24	\$114

\* Maximum charge of 2 hours per day of usage.

<b>Battery Fabrication and Characterization Laboratory</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
BatteryLabAccess	Access to 15+ tools for cells/pouch fabrication	\$20	\$110
Calendering	Hot roller press	\$50	\$140
Coin cell fabrication	Li-ion batteries coin cell fabrication in glovebox	\$50	\$140
Electrochem characterization*	Potentiostat, gavanostat, electrchemical impedance	\$70	\$160
Magnetic stirrer	Stirring and mixing solutions	\$20	\$110
Mixer - Thinky	Slurry mixing	\$20	\$110
Pouch cell fabrication	Li-ion batteries pouch cell fabrication in glovebox	\$50	\$140
Slurry coater	Automated coater for metal foils	\$60	\$150
Vacuum Oven - Battery Lab*	Up to 150C heating under vacuum	\$60	\$150
Vigor glovebox	With sealer, die cutter, welding and crimper	\$60	\$150

\* Maximum charge of 1 hour per day of usage.