

## Hourly Use Rates for the Material Research Laboratory Facilities

*Rates for researchers employed by the University of Illinois at Urbana-Champaign, other public sector employers, and companies located in the EnterpriseWorks Incubator at the University of Illinois Research Park.*

If you have any questions, please contact the MRL Business Office at 217-333-1372.

Rates valid from January 1, 2021 and are subject to change.

The rates listed below do not include overhead fees, such as Facilities and Administration, which will be added depending on your funding instrument or agreement.

<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	\$11	\$46
Metrohm 915 KF Ti-Touch	Volumetric Karl Fischer Titration	\$12	\$47
Metrohm 917 Coulometer	Coulometric Karl Fischer Titration	\$12	\$47
Novocontrol C47 Analyzer	Dielectric, Conductivity and Impedance Spectrometer	\$17	\$52
Q50-TGA	Thermogravimetric Analysis	\$18	\$53
Q800-DMA	Dynamic Mechanical Analysis	\$17	\$52
Shimadzu DTA-50	Differential Thermal Analysis	\$17	\$52
TA Affinity ITC	Isothermal Titration Calorimetry	\$11	\$46
TA DSC 2500	Differential Scanning Calorimetry	\$18	\$53
TA DHR-3 Rheometer	Discovery Hybrid Rheometer	\$17	\$52
Tosoh EcoSEC GPC	Gel Permeation Chromatography	\$13	\$48
<b>Laser and Spectroscopy Facility</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Agilent CARY 5000	Spectrophotometry	\$15	\$50
Custom Experiment	Custom Laser Experiments	\$15	\$50
Gaertner Ellipsometer	Ellipsometry	\$17	\$52
Horiba Xplora-Nano TERS-TEPL	Tip Enhanced Raman Spectroscopy	\$17	\$52
Inspire OPO Laser	Time-Domain Thermoreflectance, Custom Laser Experiments	\$15	\$50
Inverted Materials Microscope	Optical Microscopy	\$15	\$50
Keyence VK-X1000	Optical Profiler	\$22	\$57
Mid-IR Twin OPA Laser Source	Sum Frequency Generation, Transient Absorption	\$15	\$50
Montana Cryo Station	Closed He Cycle Optical Cryo Station	\$5	\$40
Nanophoton Raman 11	Raman Spectroscopy/Microscopy	\$18	\$53
Neaspec IR AFM	Tip Enhanced Infrared Spectroscopy	\$17	\$52
Newport Solar Simulator	Custom Experiments	\$15	\$50
Nicolet Nexus 670 FTIR	Fourier Transform Infrared Spectroscopy	\$15	\$50
OL 750 Spectroradiometer	Spectroradiometry	\$15	\$50
Rame-Hart Contact Angle	Contact Angle Goniometry	\$15	\$50
Photoluminescence	Photoluminescence/Fluorescence	\$20	\$55
SLM ISS Fluorometer	Photoluminescence/Fluorescence	\$15	\$50
Time Resolved PL	Photoluminescence/Fluorescence	\$20	\$55
Tsunami Ti-Sapphire Laser	Time-Domain Thermoreflectance	\$15	\$50
Tsunami Ti-Sapphire Laser 2	Time-Domain Thermoreflectance	\$15	\$50
Two Photon Microscopy	Optical Microscopy	\$15	\$50
Varian Cary5G UV-VIS-NIR	Spectrophotometry	\$15	\$50
Witec Alpha NSOM	Near Field Scanning Optical Microscopy	\$15	\$50
Woollam VAS Ellipsometer	Spectroscopic Ellipsometry	\$17	\$52
Zeiss LSM7 Confocal	Fluorescence Microscopy	\$15	\$50

Micro & Nano-Fabrication Facility			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
AJA Sputter Coater	Sputter Coater	\$23	\$58
AJA Sputter Coater 2	Sputter Coater	\$23	\$58
AJA Sputter Coater 3	Sputter Coater	\$23	\$58
AJA Sputter Coater 4	Sputter Coater	\$23	\$58
Atomic Layer Deposition	Atomic Layer Deposition	\$23	\$58
Atomic Layer Deposition 2	Atomic Layer Deposition	\$23	\$58
Ball Bonder	Ball Bonder	\$19	\$54
Cleanroom	Cleanroom	\$18	\$53
CM Furnace	Furnace	\$6	\$41
CNT Furnace	Furnace	\$6	\$41
Desert Cryo Probe Station	Probe Station	\$20	\$55
E-beam Evaporator 1	Electron Beam Evaporation	\$23	\$58
E-beam Evaporator 2	Electron Beam Evaporation	\$23	\$58
E-beam Evaporator 4	Electron Beam Evaporation	\$24	\$59
Graphene Furnace	Furnace for the growth of carbon nanotubes and graphene layers	\$6	\$41
Harrick Plasma Cleaner	Plasma Cleaner	\$19	\$54
Heidelberg Maskless Writer	Maskless wafer aligner	\$22	\$57
Hydrogen Vacuum Furnace	Furnace	\$8	\$43
Ion Mill Evaporator	Ion Mill & Thermal Evaporator	\$28	\$63
Jandel 4 Point Probe	Four point probe	\$19	\$54
Lindberg 3 Zone Furnace - 2 inch	Furnace	\$6	\$41
March RIE	Reactive Ion Etcher for polymer samples	\$20	\$55
March RIE2	Reactive Ion Etcher for polymer samples	\$20	\$55
Mitutoyo Microscope	Optical Microscope	\$19	\$54
Olympus Microscope	Optical Microscope	\$19	\$54
Nanomaster RIE	Reactive Ion Etcher for polymer samples	\$22	\$57
Nanoscribe 3D Printer	Laser lithography 3D printer	\$20	\$55
Oven-Vacuum	Oven	\$4	\$39
Parylene Coater	Parylene Deposition - SCS Labcoater 2	\$20	\$55
PECVD	Plasma Enhanced Chemical Vapor Deposition	\$20	\$55
PECVD 2	Plasma Enhanced Chemical Vapor Deposition	\$20	\$55
Probe Station	Probe Station	\$19	\$54
Raith EBPG5150	Electron Beam Lithography	\$65	\$100
Raith e-Line	Electron Beam Lithography	\$45	\$80
RaithPrep	Cleanroom	\$18	\$53
Reactor Vacuum Furnace	Furnace	\$5	\$40
RIE	Reactive Ion Etcher	\$22	\$57
RTA Furnace	Furnace	\$11	\$46
Parylene Coater	Parylene Deposition - SCS Labcoater 2	\$20	\$55
Suss MJB3 - Deep UV	Mask Aligner - Deep UV	\$0	\$53
Suss MJB3 - Mask Aligner	Mask Aligner	\$0	\$53
Suss MJB4 - Mask Aligner	Mask Aligner	\$0	\$53
Thermal Evaporator	Thermal Evaporation	\$22	\$57
Tube Furnace - 6 inch	Furnace	\$6	\$41
Wedge Bonder	Wedge Bonder	\$19	\$54
Westbond Bonder	Wire Bonder	\$20	\$55
** Deposition of gold, platinum, or palladium incurs an additional charge of \$4 per every 10 nm deposited or fraction thereof.			

<b>Microscopy-Biological</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Bio-BioSEM	Bio SEM Prep	N/A	\$55
Bio-Embed	Embedding & Deparaffinization	N/A	\$55
Bio-EMScopeVM	EM Scope Tech Time	N/A	\$75
Bio-LMSect	Trim & LM Sectioning	N/A	\$50
Bio-NegDevelop	Negative Development	N/A	\$65
Bio-NegScan	Negative Scanning	N/A	\$45
Bio-NegStain	Negative Staining & Grids	N/A	\$50
Bio-OptoMicro	Optical Camera Tech Time	N/A	\$51
Bio-TEMsect	Trim & TEM Sectioning	N/A	\$64
Reichert Ultracut	Microtome for TEM sample preparation	\$17	\$52
<b>Microscopy-Scanning Probe</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Asylum AFM 1	Atomic Force Microscopy	\$18	\$53
Asylum AFM 2	Atomic Force Microscopy	\$18	\$53
Asylum Cypher AFM	Atomic Force Microscopy/High Resolution	\$20	\$55
Dektak 3030	Surface Profilometry	\$16	\$51
Hysitron Tip	Nanoindentation	\$10	\$45
Hysitron TriboIndenter	Nanoindentation	\$20	\$55
Leitz Microhardness	Microhardness tester	\$5	\$40
Piuma Nanoindenter	Nanoindentation	\$18	\$53
<b>Microscopy-Scanning Electron</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
HELIOS 600i FIB	Scanning Electron/Focused Ion Beam Microscopy	\$40	\$75
Hitachi S4700 SEM	Scanning Electron Microscopy/High Resolution	\$24	\$59
Hitachi S4800 SEM	Scanning Electron Microscopy/High Resolution	\$24	\$59
JEOL 6060LV SEM	Scanning Electron Microscopy/Low Vacuum	\$23	\$58
JEOL 7000F SEM	Scanning Electron Microscopy/Analytical SEM	\$27	\$62
Scios 2 FIB	Scanning Electron/Focused Ion Beam Microscopy	\$41	\$76
<b>Microscopy-Transmission Electron</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Hitachi 9500	Transmission Electron Microscopy	\$35	\$70
JEOL 2010 LaB6	Transmission Electron Microscopy	\$30	\$65
JEOL 2100 Cryo TEM	Transmission Electron Microscopy	\$32	\$67
Thermo Themis Z TEM-STEM	(Scanning) Transmission Electron Microscopy/Analytical	\$63	\$98
ThermoFisher Glacios Cryo-TEM	Cryo-TEM for Life Sciences	\$60	\$95
** Self Use sessions on the ThermoFisher Glacios Cryo-TEM that a longer than 4 hours will be charged at \$40/hr after the 4th hour.			
<b>Physical Property Measurement</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
QD MPMS3 SQUID	Magnetic Property Measurement System	\$4	\$39
QD MPMS3 SQUID B	Magnetic Property Measurement System	\$4	\$39
QD PPMS	Physical Property Measurement System	\$5	\$40
QD PPMS B	Physical Property Measurement System	\$5	\$40

<b>Surface Analysis</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Cameca LEAP 5000XS APT	Local Electrode Atom Probe Tomography	\$60	\$95
KRATOS AXIS XPS	X-Ray Photoelectron Spectroscopy/Imaging XPS	\$26	\$61
NEC Pelletron	Ion Accelerator/Rutherford Backscattering Spectroscopy	\$45	\$80
PEI Trift-III TOF-SIMS	Secondary Ion Mass Spectroscopy/Time-of-Flight	\$26	\$61
PEI660 Auger	Auger Spectroscopy	\$20	\$55
<b>X-ray Diffraction</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Bruker D8 Advance	X-ray diffraction with high-temperature stage	\$18	\$53
Dexco Laue	X-ray Diffraction/Laue	\$14	\$49
Philips Xpert	X-Ray Diffraction/High Resolution, Point or Line Focus	\$14	\$49
SAXS	X-Ray Diffraction	\$11	\$46
Shimadzu EDXRF	X-Ray Fluorescence	\$20	\$55
Siemens-Bruker D5000 XRD	X-Ray Diffraction/Powder	\$13	\$48
<b>Support Equipment</b>			
Instrument	Technique	Self Use (\$/hr)	Staff Assisted & Training (\$/hr)
Allied Multiprep	TEM sample preparation	\$6	\$41
Carbon Rod Coater	SEM Carbon Coater	\$10	\$45
Carbon String Coater	SEM Carbon Coater	\$10	\$45
FEI Vitrobot	Cryo-plunge for TEM sample preparation	\$13	\$48
FEI Mark IV Vitrobot	Cryo-plunge for TEM sample preparation	\$13	\$48
Gatan CryoPIPS	Cryo-Ion Miller for TEM sample preparation	\$10	\$45
Gatan PECS II	Ion Miller for SEM sample preparation	\$15	\$50
Gatan PIPS	Ion Miller for TEM sample preparation	\$10	\$45
Leica EM UC6 Microtome	Microtome for TEM sample preparation	\$17	\$52
PicoIndenter	Nanoindentation	\$15	\$50
Princeton WS-25 Wire Saw	Wire Saw - High Precision	\$6	\$41
SEM Sputter Coater 1	SEM Sputter Coater	\$10	\$45
SEM Sputter Coater 2	SEM Sputter Coater	\$10	\$45
Tergeo EM Plasma Cleaner	Plasma Cleaner for TEM sample preparation	\$8	\$43
Vibratory Polisher 1	Vibratory Polisher	\$3	\$38
Vibratory Polisher 2	Vibratory Polisher	\$3	\$38