

CHARACTERIZATION.NANO EQUIPMENT USAGE RATES

EFFECTIVE AUGUST 2025*

TOOL	COST (\$/HR)					
	MIT ACADEMICS		OTHER ACADEMICS		EXTERNAL	
	Self use	Staff assisted	Self use	Staff assisted	Self use	Staff assisted
ATOMIC FORCE MICROSCOPY						
<u>AGILENT 5500 AFM</u>	30.94	99.19	44.20	141.70	132.60	425.10
<u>BRUKER ICON AFM</u>	52.50	112.25	75.00	172.50	225.00	517.50
<u>CYPHER VRS AFM</u>	52.50	120.75	75.00	172.50	225.00	517.50
<u>NANOSCOPE V AFM</u>	44.00	112.25	62.86	160.36	188.58	481.08
CLEANROOM METROLOGY						
<u>HITACHI REGULUS 8100</u>	53.55	71.40	76.50	102.00	229.50	306.00
<u>JUPITER XR AFM</u>	53.55	71.40	76.50	102.00	229.50	306.00
<u>SIGMA 300 SEM</u>	53.55	71.40	76.50	102.00	229.50	306.00
CRYO-EM						
<u>AQUILOS CRYO-FIB/SEM</u>	21.00	47.50	60.00	137.00	168.00	383.60
<u>CHAMELEON</u> Grid consumable, per grid: \$33	210.00 / session	263.90 / session	600.00 / session	754.00 / session	1,680.00 / session	2,111.20 / session
<u>CLIPPING STATION</u> C-clip & ring consumable, per grid: \$10	8.75 / session	51.80 / session	25.00 / session	148.00 / session	70.00 / session	414.40 / session
<u>TALOS ARCTICA G2 CRYO-TEM</u>	25.55	52.50	73.00	150.00	204.40	420.00
<u>TITAN KRIOS G3I CRYO-TEM</u>	33.95	60.90	97.00	174.00	271.60	487.20
<u>VITROBOT</u>	63.00 / session	143.50 / session	180.00 / session	410.00 / session	504.00 / session	1,148.00 / session
ELECTRON MICROSCOPY						
<u>FEI TECNAI TEM</u>	70.00	138.25	100.00	197.50	300.00	592.50
<u>FEI HELIOS 600 FIB</u>	87.50	155.75	125.00	222.50	375.00	667.50
<u>GEMINI 450 SEM</u>	60.20	109.20	86.00	156.00	258.00	468.00
<u>HITACHI HF5000 ETEM</u>	63.78	132.03	91.12	188.62	273.36	565.86

<u>JEOL 2010F FEG TEM</u>	70.00	138.25	100.00	197.50	300.00	592.50
<u>JEOL 2011 TEM</u>	70.00	138.25	100.00	197.50	300.00	592.50
<u>SIGMA HDVP SEM</u>	60.20	109.20	86.00	156.00	258.00	468.00
<u>THEMIS Z STEM</u>	87.50	155.75	125.00	222.50	375.00	667.50
<u>VELION FIB SEM</u>	81.90	150.15	117.00	214.50	351.00	643.50
<u>ZEISS MERLIN HRSEM</u>	60.20	109.20	86.00	156.00	258.00	468.00
MAGNETIC						
<u>MPMS3 DC AC VSM</u>	10.00	78.25	14.29	111.79	42.87	335.37
MATERIALS PREP						
<u>AXIOSKOP MICROSCOPE</u>	37.00	105.25	52.86	150.36	158.58	451.08
<u>EMS150T SPUTTER COATER</u>	17.85	86.10	25.50	123.00	76.50	369.00
<u>PELCO SC7 SPUTTER COATER</u>	17.85	86.10	25.50	123.00	76.50	369.00
<u>FISCHIONE 1010 ION MILL</u>	9.26	77.51	13.23	110.73	39.69	332.19
<u>FISCHIONE 1051 TEM MILL</u>	9.26	77.51	13.23	110.73	39.69	332.19
<u>GATAN PIPS</u>	9.26	77.51	13.23	110.73	39.69	332.19
<u>VTI GLOVE BOX</u>	17.85	86.10	25.50	123.00	76.50	369.00
<u>FREEZE STAGE</u>	20.00	88.25	28.57	126.07	85.71	378.21
<u>MICRO BALANCE</u>	48.00	116.25	68.57	166.07	205.71	498.21
<u>MULTIPREPTM PRECISION POLISHING SYSTEM</u>	12.60	97.30	18.00	139.00	54.00	417.00
<u>PLASMA CLEANER</u>	37.00	105.25	52.86	150.36	158.58	451.08
<u>SZX16 MICROSCOPE</u>	30.00	98.25	42.86	140.36	128.58	421.08
<u>TEHCUT 4XTM PRECISION LOW SPEED SAW</u>	12.60	97.30	18.00	139.00	54.00	417.00
<u>UV OZONE CLEANER</u>	28.00	96.25	40.00	137.50	120.00	412.50
OPTICAL SPECTROSCOPY						
<u>ALPHA300 APYRON CONFOCAL RAMAN</u>	52.50	120.75	75.00	172.50	225.00	517.50
<u>FTIR 6700</u>	33.00	101.25	47.14	144.64	141.42	433.92
<u>FTIR IS50</u>	33.00	101.25	47.14	144.64	141.42	433.92
<u>ICP AES 5100</u>	35.00	103.25	50.00	147.50	150.00	442.50
<u>LEICA STELLARIS CRS</u>	52.50	120.75	75.00	172.50	225.00	517.50
<u>RENISHAW REFLEX RAMAN</u>	37.00	105.25	52.86	150.36	158.58	451.08
<u>UVVISNIR PE1050</u>	30.00	98.25	42.86	140.36	128.58	421.08

SURFACE ANALYSIS						
<u>PHI 700 AUGER</u>	44.00	112.25	62.86	160.36	188.58	481.08
<u>PHI VERSAPROBE XPS</u>	44.00	112.25	62.86	160.36	188.58	481.08
<u>PROFILOMETER XT</u>	44.00	112.25	62.86	160.36	188.58	481.08
<u>QCM-D</u>	33.00	101.25	47.14	144.64	141.42	433.92
X-RAY DIFFRACTION						
<u>BRUKER GADDS</u>	51.00	119.25	72.86	170.36	218.58	511.08
<u>BRUKER HRXRD</u>	51.00	119.25	72.86	170.36	218.58	511.08
<u>LAUE</u>	51.00	119.25	72.86	170.36	218.58	511.08
<u>HANDHELD XRF</u>	51.00	119.25	72.86	170.36	218.58	511.08
<u>PANALYTICAL XPRT</u>	51.00	119.25	72.86	170.36	218.58	511.08
<u>PANALYTICAL EMPYREAN</u>	51.00	119.25	72.86	170.36	218.58	511.08
<u>SAXS</u>	51.00	119.25	72.86	170.36	218.58	511.08
<u>SMARTLAB</u>	51.00	119.25	72.86	170.36	218.58	511.08
<u>VERSA 620 XRM</u>	52.50	120.75	75.00	172.50	225.00	517.50

*Please note that rates are subject to change.