

CHARACTERIZATION.NANO EQUIPMENT USAGE RATES

EFFECTIVE MARCH 2026

TOOL	COST (\$/HR)			
	EXTERNAL		START.NANO	
	Self use	Staff assisted	Self use	Staff assisted
ATOMIC FORCE MICROSCOPY				
<u>AGILENT 5500 AFM</u>	225.75*	519.23	152.25*	350.18
<u>BRUKER ICON AFM</u>	225.75*	519.23	152.25*	350.18
<u>CYPHER S AFM</u>	225.75*	519.23	152.25*	350.18
<u>CYPHER VRS AFM</u>	225.75*	519.23	152.25*	350.18
CLEANROOM METROLOGY				
<u>AFM-ASYLUM JUPITER XR</u>				
<u>SEM-HITACHI REGULUS 8100</u>	Rates for these and other cleanroom metrology instruments can be found at: nanousers.mit.edu/fabnano-rates			
<u>SEM-ZEISS SIGMA 300</u>				
ELECTRON MICROSCOPY				
<u>AQUILOS CRYO-FIB/SEM</u>	376.25	669.73	253.75	451.68
<u>FEI HELIOS 600 FIB</u>	376.25	669.73	253.75	451.68
<u>FEI TECNAI TEM</u>	301.00	602.00	203.00	406.00
<u>GEMINI 450 SEM</u>	258.86	473.00	174.58	319.00
<u>HITACHI HF5000 ETEM</u>	301.00	602.00	203.00	406.00
<u>JEOL 2010F FEG TEM</u>	301.00	602.00	203.00	406.00
<u>JEOL 2011 TEM</u>	301.00	602.00	203.00	406.00
<u>QUATTRO ESEM</u>	258.86	473.00	174.58	319.00
<u>SIGMA HDVP SEM</u>	258.86	473.00	174.58	319.00
<u>TFS TALOS F200I</u>	301.00	602.00	203.00	406.00
<u>THEMIS Z STEM</u>	376.25	669.73	253.75	451.68
<u>VELION FIB SEM</u>	352.17	645.65	237.51	435.44

<u>ZEISS MERLIN HRSEM</u>	258.86	473.00	174.58	319.00
<u>MICROSCOPY ANALYSIS COMP</u>	21.50	314.98	14.50	212.43
MAGNETIC				
<u>MPMS3 DC AC VSM</u>	43.00	336.48	29.00	226.93
MATERIALS PREP				
<u>ALLIED MULTIPREP POLISHER</u>	54.18	418.39	36.54	282.17
<u>ALLIED TECHCUT</u>	54.18	418.39	36.54	282.17
<u>EMS150T SPUTTER COATER</u> Rates are per evaporation, not per hour.	76.76	370.23	51.77	249.69
<u>FISCHIONE 1010 ION MILL</u>	43.00	333.25	29.00	224.75
<u>FISCHIONE 1051 TEM MILL</u>	43.00	333.25	29.00	224.75
<u>FREEZE STAGE</u>	86.00	379.48	58.00	255.93
<u>GATAN PIPS</u>	43.00	333.25	29.00	224.75
<u>MICRO BALANCE</u>	206.40	499.88	139.20	337.13
<u>MICROSCOPE AXIOSKOP</u>	159.10	452.58	107.30	305.23
<u>MICROSCOPE SZX16</u>	129.00	422.48	87.00	284.93
<u>PELCO SC7 SPUTTER COATER</u>	76.76/hr + 127.93/run	369.80/hr + 180.60/run	51.77/hr + 86.23/run	249.40/hr + 121.80/run
<u>PLASMA CLEANER</u>	159.10	452.58	107.30	305.23
<u>UV OZONE CLEANER</u>	120.40	413.88	81.20	279.13
<u>VTI GLOVE BOX</u>	76.76/hr + 76.76/run	369.80/hr + 129.00/run	51.77/hr + 51.77/run	249.40/hr + 87.00/run
OPTICAL SPECTROSCOPY				
<u>ALPHA300 APYRON CONFOCAL RAMAN</u>	225.75	519.23	152.25	350.18
<u>FTIR 6700</u>	141.90	435.38	95.70	293.63
<u>FTIR IS50</u>	141.90	435.38	95.70	293.63
<u>ICP AES 5100</u>	150.50	443.98	101.50	299.43
<u>LEICA STELLARIS CRS</u>	225.75	519.23	152.25	350.18
<u>RENISHAW REFLEX RAMAN</u>	159.10	452.58	107.30	305.23
<u>UVVISNIR PE1050</u>	129.00	422.48	87.00	284.93
SURFACE ANALYSIS				
<u>BRUKER TRIBOINDENTER NANOINDENTER</u>	210.70*	337.12	142.10*	227.36
<u>FILMETRICS REFLECTOMETER</u>	159.10	452.58	107.30	305.23
<u>PHI 700 AUGER</u>	189.20	482.68	127.60	325.53

<u>PHI VERSAPROBE XPS</u>	189.20	482.68	127.60	325.53
<u>PROFILOMETER XT</u>	189.20	482.68	127.60	325.53
<u>OCM-D</u>	141.90	435.38	95.70	293.63
X-RAY DIFFRACTION & IMAGING				
<u>BRUKER DISCOVER PLUS</u>	219.30**	512.78	147.90**	345.83
<u>HANDHELD XRF</u>	219.30	512.78	147.90	345.83
<u>LAUE</u>	219.30**	512.78	147.90**	345.83
<u>PANALYTICAL EMPYREAN</u>	219.30**	512.78	147.90**	345.83
<u>PANALYTICAL XPERT</u>	219.30**	512.78	147.90**	345.83
<u>SAXS</u>	219.30**	512.78	147.90**	345.83
<u>SMARTLAB</u>	219.30**	512.78	147.90**	345.83
<u>VERSA 620 XRM</u>	225.75	589.10	152.25	397.30
<u>XRAY INSPECTION</u>	180.60	361.20	121.80	243.60

Please note that rates are subject to change.

* Rate drops to 50% regular rate after 8 hours for long sessions.

** Rate drops to 33% regular rate during overnight sessions.

TOOL	COST (\$/HR)					
	MIT		OTHER ACADEMICS		EXTERNAL	
	Self use	Staff assisted	Self use	Staff assisted	Self use	Staff assisted
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <i>Note: START.nano Cryo-EM rates are equal to the external rates.</i> </div>						
CRYO-EM						
<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 C-clip & cryo-FIB ring consumable, per grid: \$33	8.75 / session	51.80 / session	25.00 / session	148.00 / session	70.00 / session	414.40 / session
<u>HYDRA BIO PFIB/SEM</u>	21.00	47.95	60.00	137.00	168.00	383.60
<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