

CHARACTERIZATION.NANO TOOL PRICING

AY 2023–2024

TOOL	COST (\$/HR)					
	MIT ACADEMICS		OTHER ACADEMICS		EXTERNAL	
	Self use	Staff assisted	Self use	Staff assisted	Self use	Staff assisted
AFM						
<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
ANALYSIS						
<u>MICROSCOPY ANALYSIS COMP</u>	5.01	73.26	7.15	104.65	21.45	313.95
CRYOEM						
<u>AQUILOS CRYO-FIB/SEM</u>	453.12 / day	599.04 / day	1,416.00 / day	1,872.00 / day	3,964.80 / day	5,241.60 / day
<u>TALOS ARCTICA G2 CRYO-TEM</u>	514.56 / day	660.48 / day	1,608.00 / day	2,064.00 / day	4,502.40 / day	5,779.20 / day
<u>TITAN KRIOS G3I CRYO-TEM</u>	714.24 / day	867.84 / day	2,232.00 / day	2,712.00 / day	6,249.60 / day	7,593.60 / day
DUALBEAM						
<u>FEI HELIOS 600 FIB</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
MAGNETIC						
<u>MPMS3 DC AC VSM</u>	10.00	78.25	14.29	111.79	42.87	335.37
MATERIALS PREP						
<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>PLASMA CLEANER</u>	37.00	105.25	52.86	150.36	158.58	451.08
<u>UV OZONE CLEANER</u>	28.00	96.25	40.00	137.50	120.00	412.50
<u>MICROSCOPE AXIOSKOP</u>	37.00	105.25	52.86	150.36	158.58	451.08
<u>MICROSCOPE SZX16</u>	30.00	98.25	42.86	140.36	128.58	421.08
SEM						
<u>JEOL 5910 SEM</u>	60.20	109.20	86.00	156.00	258.00	468.00
<u>GEMINI 450 SEM</u>	60.20	109.20	86.00	156.00	258.00	468.00
<u>SIGMA HDVP SEM</u>	60.20	109.20	86.00	156.00	258.00	468.00
<u>ZEISS MERLIN HRSEM</u>	60.20	109.20	86.00	156.00	258.00	468.00
SPECTROSCOPY						
<u>ALPHA300 APYRON CONFOCAL RAMAN</u>	52.50	120.75	75.00	172.50	225.00	517.50
<u>ICP AES 5100</u>	35.00	103.25	50.00	147.50	150.00	442.50
<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>RAMAN REFLEX</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>FILMETRICS REFLECTOMETER</u>	37.00	105.25	52.86	150.36	158.58	451.08
<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
TEM						
<u>FEI TECNAI TEM</u>	70.00	138.25	100.00	197.50	300.00	592.50
<u>HITACHI HF5000 ETEM</u>	63.78	132.03	91.12	188.62	273.36	565.86
<u>JEOL 2011 TEM</u>	70.00	138.25	100.00	197.50	300.00	592.50
<u>JEOL 2010 HRTEM</u>	70.00	138.25	100.00	197.50	300.00	592.50
<u>JEOL 2010F FEG TEM</u>	70.00	138.25	100.00	197.50	300.00	592.50

<u>THEMIS Z STEM</u>	87.50	155.75	125.00	222.50	375.00	667.50
XRD						
<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 XPERT</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

*Training rate for SEM and XRD is \$200 flat fee for all equipment and classroom group training