



# COLUMBIA | NANO INITIATIVE

## INDUSTRIAL USERS PRICE LIST:

Rates effective: January, 2024. All prices are in \$USD. Please check our website for updates.

- Prices are for Industrial users only.
- Inventory items or staff time do not count for capping.
- Industrial users have a fee cap of \$4,500 per month, per user, per project for Cleanroom and Nanobeam.
- Inventory items or staff time do not count towards user fee capping.
- Work performed by CNI staff will be charged at a rate of \$135 per hour in addition to instrument time.
- A membership fee of \$150 monthly for each Industrial research group will be applied to **active** months only.
- Instrument training will be charged to the user's project and does not incur staff time charges, only instrument time.

Machine	Hourly rate [\$]	Max time [hours]	Min time [hours]
<b>Cleanroom</b>			
RCA station	45	3	0.5
Litho spinners (each)	51	3	0.5
Litho hoods	51	3	0.5
General Acids hood	45	3	0.5
General Base hood	45	3	0.5
YES (HMDS) oven	51	4	0.5
UV Ozone	30	2	0.25
Solaris RTA	60	4	0.25
Expertech furnace (each tube)	165	8	1
Chemical Mechanical Polishing	165	6	1
Angstrom EvoVac System	105	4	0.5
Angstrom High Vacuum Evaporator	120	4	0.5

Cambridge NanoTech ALD	99	4	0.5
KLA Profilometer	51	2	0.5
Diener Plasma Etch	99	4	0.5
Edwards Thermal Evaporator	60	6	0.5
AJA Metal sputter	66	6	0.5
AJA Dielectric sputter	75	6	0.5
Heidelberg DWL165+ Laser Writer	99	10	0.5
Heidelberg (3 micron) Laser Writer	84	8	0.5
Spinner 1 (dirty station)	45	3	0.5
OXFORD ICP direct load	120	4	0.5
Oxford PECVD	135	4	0.5
CI RIE Oxford	135	4	0.5
F DRIE Oxford	135	4	0.5
Critical Point Dryer	51	3	0.5
MA6 Mask Aligner	84	4	0.5
DUV MA6 Mask Aligner	99	4	0.5
Anatech Plasma Asher	90	4	0.5
TPT Wire Bonder	51	4	0.5
NanoMagnetics ezAFM	51	5	0.5
Wyko NT9100 Optical Profiler	60	3	0.5
Nanobeam	165	8	0.25
Parylene Coater	51	6	0.5
Dicing Saw	66	6	0.5
Nova Nano SEM	84	8	0.5
Beamer	75	8	0.5
Park AFM	90	8	0.5

<b>Shared Material Characterization Lab</b>			
TA instruments Q500 TGA	54	75	0.5
Agilent Supernova SCXRD	99	10	0.5
Synergy-S SCXRD	99	10	0.5
Bruker Dimension FastScan AFM	105	8	0.5
Panalytical Xpert3 Powder XRD	69	75	0.5
Phi XPS	99	10	0.5
Renishaw inVia microRaman	51	10	0.5
Woollam Alpha-SE Ellipsometer	51	8	0.5
Woollam Variable Angle Ellipsometer	51	8	0.5
Agilent 8453 UV/Vis Spectrophotometer	51	10	0.5
Malvern Zetasizer Nano-ZS	66	10	0.5
Horiba micro-Raman	51	9	0.5
Autofinders	51	9	0.5
Agilent, EcoSec GPC	66	5	0.5
BET	66	9	0.5

<b>Electron Microscopy</b>			
FEI Talos TEM	249	8*	1
Zeiss Sigma SEM	99	6	0.5
Diamond Saw	66	4	0.5
Dimple Grinder	66	4	0.5
Grinder-Polisher	66	4	0.5
Light Zeiss Microscope	66	4	0.5
PIPS II	75	4	0.5

Plasma Cleaner	66	4	0.5
TEM Bio Samples	66	75	0.5
TEM FIB Samples prep**	66	75	0.5
Microtome	51	4	0.5

*\*TEM max charge is given per day (60 hours).*

*\*\*FIB sample preparation is done off campus and will include staff charges.*

*Some Inventory items (e.g. clean room notebooks, wafers, tweezers, AFM tips, dicer blades, tool belts etc.) can be purchased for use in the lab for nominal price. Please contact the shared Labs staff at [cnilabs@columbia.edu](mailto:cnilabs@columbia.edu) for more information.*