



# COLUMBIA | NANO INITIATIVE

## INTERNAL ACADEMIA PRICE LIST:

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

- Prices are for internal users only.
- All user fees paid with CNI-Designated Grants (CDGs) receive a 10% subsidy. If interested in determining grant designation eligibility, please email [CNIBilling@columbia.edu](mailto:CNIBilling@columbia.edu).
- Internal users have a fee cap of \$1,500 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 \$45 per hour in addition to instrument time.
- A membership fee of \$50 monthly for each Columbia Internal research group will be applied to **active** months only.
- Instrument training will be charged to the student/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	15	3	0.5
Litho spinners (each)	17	3	0.5
Litho hoods	17	3	0.5
General Acids hood	15	3	0.5
General Base hood	15	3	0.5
YES (HMDS) oven	17	4	0.5
UV Ozone	10	2	0.25
Solaris RTA	20	4	0.25
Expertech furnace (each tube)	55	8	1
Chemical Mechanical Polishing	55	6	1
Angstrom EvoVac System	35	4	0.5

Angstrom High Vacuum Evaporator	40	4	0.5
Cambridge NanoTech ALD	33	4	0.5
KLA Profilometer	17	2	0.5
Diener Plasma Etch	33	4	0.5
Edwards Thermal Evaporator	20	6	0.5
AJA Metal sputter	22	6	0.5
AJA Dielectric sputter	25	6	0.5
Heidelberg DWL66+ Laser Writer	33	10	0.5
Heidelberg (3 micron) Laser Writer	28	8	0.5
Spinner 1 (dirty station)	15	3	0.5
OXFORD ICP direct load	40	4	0.5
Oxford PECVD	45	4	0.5
Cl RIE Oxford	45	4	0.5
F DRIE Oxford	45	4	0.5
Critical Point Dryer	17	3	0.5
MA6 Mask Aligner	28	4	0.5
DUV MA6 Mask Aligner	33	4	0.5
Anatech Plasma Asher	30	4	0.5
TPT Wire Bonder	17	4	0.5
Wyko NT9100 Optical Profiler	20	3	0.5
Nanobeam	55	8	0.25
Parylene Coater	17	6	0.5
Dicing Saw	22	6	0.5
Nova Nano SEM	28	8	0.5
Beamer	25	8	0.5
Park AFM	30	8	0.5

<b>Shared Material Characterization Lab</b>			
TA instruments Q500 TGA	18	12	0.5
Agilent Supernova SCXRD	33	10	0.5
Synergy-S SCXRD	33	10	0.5
Bruker Dimension FastScan AFM	35	8	0.5
Panalytical Xpert3 Powder XRD	23	12	0.5
Phi XPS	33	10	0.5
Renishaw inVia microRaman	17	10	0.5
Woollam Alpha-SE Ellipsometer	17	8	0.5
Woollam Variable Angle Ellipsometer	17	8	0.5
Agilent 8453 UV/Vis Spectrophotometer	17	10	0.5
Malvern Zetasizer Nano-ZS	22	10	0.5
Horiba micro-Raman	17	9	0.5
Autofinders	17	9	0.5
NanoMagnetics ezAFM	17	5	0.5
Agilent, EcoSec GPC	22	5	0.5
BET	22	9	0.5

<b>Electron Microscopy</b>			
FEI Talos TEM	83	8*	1
Zeiss Sigma SEM	33	6	0.5
Diamond Saw	22	4	0.5
Dimple Grinder	22	4	0.5
Grinder-Polisher	22	4	0.5
Light Zeiss Microscope	22	4	0.5

PIPS II	25	4	0.5
Plasma Cleaner	22	4	0.5
TEM Bio Samples	22	12	0.5
TEM FIB Samples prep**	22	12	0.5
Microtome	17	4	0.5

*\*TEM max charge is given per day (24 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.*