



COLUMBIA | NANO INITIATIVE

EXTERNAL ACADEMIA PRICE LIST:

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

- Prices are for External Academia users only.
- Inventory items or staff time do not count for capping.
- External Academic users have a fee cap of \$2,500 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 \$54 per hour in addition to instrument time.
- A membership fee of \$75 monthly for each External Academia 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]
Cleanroom			
RCA station	18	3	0.5
Litho spinners (each)	20.4	3	0.5
Litho hoods	20.4	3	0.5
General Acids hood	18	3	0.5
General Base hood	18	3	0.5
YES (HMDS) oven	20.4	4	0.5
UV Ozone	12	2	0.25
Solaris RTA	24	4	0.25
Expertech furnace (each tube)	66	8	1
Chemical Mechanical Polishing	66	6	1
Angstrom EvoVac System	42	4	0.5

Angstrom High Vacuum Evaporator	42	4	0.5
Cambridge NanoTech ALD	39.6	4	0.5
KLA Profilometer	20.4	2	0.5
Diener Plasma Etch	39.6	4	0.5
Edwards Thermal Evaporator	24	6	0.5
AJA Metal sputter	26.4	6	0.5
AJA Dielectric sputter	30	6	0.5
Heidelberg DWL66+ Laser Writer	39.6	10	0.5
Heidelberg (3 micron) Laser Writer	33.6	8	0.5
Spinner 1 (dirty station)	18	3	0.5
OXFORD ICP direct load	48	4	0.5
Oxford PECVD	54	4	0.5
Cl RIE Oxford	54	4	0.5
F DRIE Oxford	54	4	0.5
Critical Point Dryer	20.4	3	0.5
MA6 Mask Aligner	33.6	4	0.5
DUV MA6 Mask Aligner	39.6	4	0.5
Anatech Plasma Asher	36	4	0.5
TPT Wire Bonder	20.4	4	0.5
NanoMagnetics ezAFM	20.4	5	0.5
Wyko NT9100 Optical Profiler	24	3	0.5
Nanobeam	66	8	0.25
Parylene Coater	20.4	6	0.5
Dicing Saw	26.4	6	0.5
Nova Nano SEM	33.6	8	0.5
Beamer	30	8	0.5
Park AFM	35	8	0.5

Shared Material Characterization Lab			
TA instruments Q500 TGA	21.6	12	0.5
Agilent Supernova SCXRD	39.6	10	0.5
Synergy-S SCXRD	39.6	10	0.5
Bruker Dimension FastScan AFM	42	8	0.5
Panalytical Xpert3 Powder XRD	27.6	12	0.5
Phi XPS	39.6	10	0.5
Renishaw inVia microRaman	20.4	10	0.5
Woollam Alpha-SE Ellipsometer	20.4	8	0.5
Woollam Variable Angle Ellipsometer	20.4	8	0.5
Agilent 8453 UV/Vis Spectrophotometer	20.4	10	0.5
Malvern Zetasizer Nano-ZS	26.4	10	0.5
Horiba micro-Raman	20.4	9	0.5
Autofinders	20.4	9	0.5
Agilent, EcoSec GPC	26.4	5	0.5
BET	26.4	9	0.5

Electron Microscopy			
FEI Talos TEM	99.6	8*	1
Zeiss Sigma SEM	39.6	6	0.5
Diamond Saw	26.4	4	0.5
Dimple Grinder	26.4	4	0.5
Grinder-Polisher	26.4	4	0.5
Light Zeiss Microscope	26.4	4	0.5

PIPS II	30	4	0.5
Plasma Cleaner	26.4	4	0.5
TEM Bio Samples	26.4	12	0.5
TEM FIB Samples prep**	26.4	12	0.5
Microtome	20.4	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 for more information.