

# ***COLUMBIA NANO INITIATIVE (CNI)***

## CNI Shared Facility Price List

Rates effective: September 1<sup>st</sup>, 2017. All prices are in USD. Please check our website for updates.

- Prices are for internal users. Internal users who pay user fees with grants which ran through CNI will get a 10% subsidy. External Academia will be charged additional administrative fee of 20% to the rates below. Industrial users' rates are X3.
- Internal users will be capped for \$1,500 per month per user in the clean room and Nanobeam.
- Set up charges were eliminated and the charges were incorporated into the hourly rate.

<b>Machine</b>	<b>Hourly rate [\$]</b>	<b>Max time [hours]</b>	<b>Min time charged [hours]</b>	<b>Staff rate [\$]</b>
RCA station	17	3	0.5	33.33
Litho hood 1 (including spinner)	17	3	0.5	33.33
Litho hood 2 (including spinner)	17	3	0.5	33.33
Litho hood 3 (lift off) (including spinner)	17	3	0.5	33.33
General Acids hood	17	3	0.5	33.33
General Base hood	17	3	0.5	33.33
Expertech furnace	60	10	1	33.33
Chemical Mechanical Polishing	55	6	1	33.33
Angstrom EvoVac System	35	4	0.5	33.33
Cambridge NanoTech ALD	33	4	0.5	33.33
KLA Profilometer	17	2	0.5	33.33
Diener Plasma Etch	33	4	0.5	33.33
Edwards Thermal Evaporator	17	4	0.5	33.33
AJA Metal sputter	22	4	0.5	33.33
AJA Dielectric sputter	25	4	0.5	33.33
Heidelberg DWL66+ Laser Writer	33	10	0.5	33.33
Heidelberg (3 micron) Laser Writer	28	8	0.5	33.33
Spinner 1 (dirty station)	15	3	0.5	33.33
OXFORD ICP	40	4	0.5	33.33
Oxford PECVD	50	4	0.5	33.33
CI RIE Oxford	45	4	0.5	33.33
FI DRIE Oxford	45	4	0.5	33.33
Critical Point Dryer	17	3	0.5	33.33
MA6 Mask Aligner	28	4	0.5	33.33
DUV MA6 Mask Aligner	33	4	0.5	33.33
RIE Anatec Plasma Asher	33	4	0.5	33.33
Wire Bonder (Aluminum)	22	4	0.5	33.33
Wire Bonder (Gold)	28	4	0.5	33.33
Wyko NT9100 Optical Profiler	22	3	0.5	33.33
Nanobeam	55	8	0.5	33.33

## ***COLUMBIA NANO INITIATIVE (CNI)***

Parylene Coater	17	3	0.5	33.33
Dicing Saw	22	6	0.5	33.33
Nova Nano SEM	25	8	0.5	33.33
Beamer	25	8	0.5	33.33
Cryogenic R-700X Squid Magnetometer	31	8	0.5	33.33
TA instruments Q500 TGA	18	12	0.5	33.33
Agilent Supernova SCXRD	33	10	0.5	33.33
Bruker Dimension FastScan AFM	40	8	0.5	33.33
Panalytical Xpert3 Powder XRD	23	12	0.5	33.33
Phi XPS	33	10	0.5	33.33
Renishaw inVia microRaman	17	10	0.5	33.33
Woollam Alpha-SE Ellipsometer	17	8	0.5	33.33
Agilent 8453 UV/Vis Spectrophotometer	17	10	0.5	33.33
Malvern Zetasizer Nano-ZS	22	10	0.5	33.33
Signatone Transfer Station	17	5	0.5	33.33
Horiba micro-Raman	17	5	0.5	33.33
Autofinder	17	5	0.5	33.33
NanoMagnetics ezAFM	17	5	0.5	33.33
Agilent GPC	22	5	0.5	33.33
BET	22	5	0.5	33.33
FEI Talos TEM	83	8	1	33.33
Zeiss Sigma SEM	25	6	0.5	33.33
Diamond Saw	22	4	0.5	33.33
Dimple Grinder	22	4	0.5	33.33
Grinder-Polisher	22	4	0.5	33.33
Light Zeiss Microscope	22	4	0.5	33.33
PIPS II	25	4	0.5	33.33
Plasma Cleaner	22	4	0.5	33.33
TEM Bio Samples	22	12	0.5	33.33
Microtome	17	4	0.5	33.33

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