

Facility Rates & Expense Caps

NAME	CARNEGIE MELLON USERS	EXTERNAL USERS
Entry Fee	\$20.00/Day	\$30.70/Day
Nanofab Training Fee	\$25.00/Hour	\$38.38/Hour
Nanofab Process Development/Labor	\$50.00/Hour	\$76.75/Hour
Wafer Dicing Service	\$85.00/Hour	\$130.48/Hour
Nanofab Sputtering Systems #1 - #5	\$75.00/Run	\$115.13/Run
Perkin-Elmer 2400 6J Sputtering System	\$75.00/Run	\$115.13/ Run
Perkin-Elmer 2400 8L Sputtering System	\$75.00/Run	\$115.13/Run
CVC Connexion Sputtering System	\$75.00/Run	\$115.13/Run
Commonwealth Scientific Ion Beam Deposition System	\$75.00/Run	\$115.13/Run
Leybold-Heraeus Z-400 Sputtering Systems #1 & #2	\$75.00/Run	\$115.13/Run
Leybold-Heraeus Z-650 Sputtering System	\$75.00/Run	\$115.13/Run
Anelva SPF-730 Sputtering System	\$75.00/Run	\$115.13/Run
Anatec Gold Coater	\$50.00/Run	\$76.75/Run
Copper Electroplating System	\$50.00/Run	\$76.75/Run
Micrion 2500 Focused Ion Beam System	\$75.00/Hour	\$115.13/Run
Surface Technology Systems ICP RIE System	\$30.00/Up To A 15 Minute Run	\$46.05/Up To A 15 Minute Run
	\$50.00/Up To A 30 Minute Run	\$76.75/Up To A 30 Minute Run
	\$75.00/Up To An Hour Run	\$115.13/Up To An Hour Run
	\$25.00/Each Additional Hour Per Run	\$38.38/Each Additional Hour Per Run
Plasma-Therm 790 RIE System	\$25.00/Up To A 15 Minute Run	\$38.38/Up To A 15 Minute Run
	\$40.00/Up To A 30 Minute Run	\$61.40/Up To A 30 Minute Run
	\$65.00/Up To An Hour Run	\$99.78/Up To An Hour Run
	\$10.00/Each Additional Hour Per Run	\$15.35/Each Additional Hour Per Run
Trion Phantom II RIE System	\$25.00/Up To A 15 Minute Run	\$38.38/Up To A 15 Minute Run
	\$40.00/Up To A 30 Minute Run	\$61.40/Up To A 30 Minute Run
	\$65.00/Up To An Hour Run	\$99.78/Up To An Hour Run
	\$10.00/Each Additional Hour Per Run	\$15.35/Each Additional Hour Per Run

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NAME	CARNEGIE MELLON USERS	EXTERNAL USERS
IPC Barrell Etcher	\$20.00/Up To A 15 Minute Run	\$30.70/Up To A 15 Minute Run
	\$35.00/Up To A 30 Minute Run	\$53.73/Up To A 30 Minute Run
	\$50.00/Up To An Hour Run	\$76.75/Up To An Hour Run
	\$10.00/Each Additional Hour Per Run	\$15.35/Each Additional Hour Per Run
Commonwealth Scientific Ion Beam Etching Systems #1 & #2	\$75.00/Run	\$115.13/Run
Trion Orion II PECVD System	\$75.00/Run	\$115.13/Run
Karl Suss MJB3 Mask Aligner	\$50.00/Hour	\$76.75/Hour
Karl Suss MA56 Mask Aligner	\$60.00/Hour	\$92.10/Hour
Karl Suss MA6 Mask Aligner	\$70.00/Hour	\$107.45/Hour
GCA 4800 10X Wafer Stepper	\$75.00/Hour	\$115.13/Hour
Olympus MX80 Microscope With Optronics Digital Camera System	\$25.00/Day	\$38.38/Day
FEI Sirion SEM With Nabyty E. Beam Lithography System	\$75.00/Hour	\$115.13/Hour
Tencor Alpha-Step 200 Profilometer	\$40.00/Hour	\$61.40/Hour
Tencor P-2 Profilometer	\$50.00/Hour	\$76.75/Hour
KLA-Tencor P-15 Profilometer	\$50.00/Hour	\$76.75/Hour
Nanometrics Nanospec 210XP	\$40.00/Hour	\$61.40/Hour
Strasbaugh 6EC CMP	\$75.00/Run	\$115.13/Run
Ultratech Scrubber	\$25.00/Run	\$38.38/Run
Ultek E. Beam Evaporator	\$75.00/Run	\$115.13/Run
CHA Thermal Evaporator	\$75.00/Run	\$115.13/Run
Vapor-Temp Relative Humidity Chamber	\$25.00/Run	\$38.38/Run
Micromech Diamond Saw	\$45.00/Run	\$69.08/Run
AG Associates Rapid Thermal Annealer	\$50.00/Run	\$76.75/Run
Hot Pack Vacuum Oven	\$25.00/Run	\$38.38/Run
YES Vapor Prime Oven	\$25.00/Run	\$38.38/Run
Lindberg Box Furnace	\$25.00/Run	\$38.38/Run
Annealing Furnace	\$25.00/Run (Without Gas)	\$38.38/Run (Without Gas)
	\$50.00/Run (With Gas)	\$76.75/Run (With Gas)
Oxidation Furnace	\$150.00/Run	\$233.10/Run
Thermcraft 2" Barrell Furnace	\$25.00/Run (Without Gas)	\$38.38/Run (Without Gas)
	\$50.00/Run (With Gas)	\$76.75/Run (With Gas)
Model Shop	\$25.00/Month	\$38.38/Month



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External rates are calculated using Carnegie Mellon's current F&A Rates for Budgeting Proposals plus 5%.

Carnegie Mellon Personnel Monthly Expense Caps

The Nanofabrication Facility has an expense cap on entry and equipment fees charged to Carnegie Mellon personnel. These caps are the maximum amount that an individual's account can be charged in a single calendar month. The cap begins on the 1st of every month and goes until the last day of that month. The purpose of these caps is to assist faculty advisors in the budgeting process and avoid any large one month expenditures. Multiple users using the same account number are each subject to their own cap. One user using multiple account numbers is subject to a cap for each account number. These caps are for Carnegie Mellon personnel working on projects with a Carnegie Mellon account number.

- The entry fee cap is \$250 a month per user per account number.
- The equipment fee cap is \$2,500 a month per user per account number.

External Personnel Monthly Expense Caps

The Nanofabrication Facility has an expense cap on entry and equipment fees charged to external personnel. The cap begins on the 1st of every month and goes until the last day of that month. These caps are on a per-company basis according to the number of users representing the company in the Nanofab. For example, two users in the facility would give the company a \$10,000 equipment fee cap and a \$1,000 entry fee cap.

- The entry fee cap is \$500 a month per user per company.
- The equipment fee cap is \$5,000 a month per user per company.
- Time on the Micrion 2500 Focused Ion Beam System and FEI Sirion SEM/Nabity E. Beam Lithography System are not included in the equipment cap.

Precious Metal Fees

Precious metal thin film depositions are subject to an additional fee in order to compensate for the high cost of the targets. These prices are subject to change based on current market values.

Gold: 0.5 Micron or less: \$50 per run, \$25 for each additional 0.5 Micron per run.

Platinum: 0.5 Micron or less: \$65 per run, \$25 for each additional 0.5 Micron per run.

*These prices are subject to change based on current market values.

Carnegie Mellon Faculty First Year Matching Fund

The Nanofabrication Facility will grant a matching fund equal to 50% of the entry fees and equipment use fees to new Carnegie Mellon Faculty at the Assistant Professor rank. This matching fund extends for the first year of use of the facilities up to a total of \$5,000.00.

