User Fee and Billing

1. **Equipment user fees**

Hourly user fees are charged to recover the costs associated with operating and maintaining equipment. The monthly cap of $1000 is the maximum amount that is charged for all equipment access in the cleanroom per month. This cap is applied per user and not per faculty or PI. There is no monthly cap on user fee incurred by industry users. The fee rate is summarized in the below table.

Tool	University and Not-profit, equipment use rate	Industry equipment use rate
Cleanroom Access[1]	$7/hour	$12/hour
Mask Aligner (Karl Suss MJB3) and spin coater	$30/hour $5/hour for only spin coater	$50/hour $10/hour for only spin coater
Thermal Evaporator (Edwards Auto 306)[2]	$30/run	$50/run
DC/RF Sputtering (Denton Explorer 14)[2]	$30/run	$50/run
Dry Etcher (Technics 800-II)	$20/hour	$30/hour
Surface Profiler (Veeco Dektak 150)	$15/hour	$25/hour
E-beam Evaporator (CHA explorer)[2]	$60/run	$90/run
Furnace or vacuum oven	$5/hour $50/day	$10/hour $100/day
Oxidation Furnace	$15/hour	$30/hour
Wafer Dicing machine	$10/hour	$20/hour
Flood UV Exposure	$10/Hour, $5 min.	$20/Hour

[1]Cleanrrom Access fee covers use of general tools (including high resolution microscope, wet benches, and other general lab tools) and consumable materials (including mask, gloves, solvents, and nitrogen gas)

[2]Current available target materials are Al, Cr, Cu, Ti, and Ni. Other target materials except those available materials should be supplied by users.

[3]For photolithography process, users need to bring their own photoresists and developers. For a case that users want to use photoresists and developers from the cleanroom, additional fee will be charged. (SU-8 photoresist /developer: $250, AZ photoresist/developer: $200)

2. Labor fees ($20/hour)

This fee is charged in addition to the equipment use rate when staff labor is required or desired. Examples include equipment training of new users, and processing or measurement supported by a cleanroom staff member. Cleanroom labor fees are not capped on a monthly basis for any user.

3. Billing

Each month, users will be given a log-in card for each tool use. This will be stored in the entrance of the cleanroom. When they finish their work, they are required to fill out their use of tools in the log-in card. At the end of month, total usage will be calculated and a copy of an invoice with a copy of the log-in card for that period will be sent to the designated PI or the user's supervisor. PI is required to submit a payment request to Micro/Nano Fabrication Lab

(Payment Request: Nano/Micro Lab, RF-Account#: 92313-04 01)