

SNF FY18 Rates

Effective 9/1/17¹

Equipment Use				
Activity	Rate Class	Rate Category ³		
		Academic	Industry	Industry: SBIR
Cleanroom ²	Base Rate \$/hr < Soft Cap	\$60	\$120	\$96
	Monthly Soft Cap (60 hrs)	\$3,600	\$7,200	\$5,760
	Above Soft Cap (>60 hours)	25% of hourly rates		
	Epitaxial Deposition (Epi2/2B)	\$70.00	\$140	\$112
ExFab ^{4,5}	1	\$3	\$9	--
	2	\$5	\$15	--
	3	\$10	\$30	--
	4	\$20	\$60	--
	5A	\$35	\$105	--
	5B	\$35	\$70	--
	Raith	\$70.00	\$140	--
MOCVD ⁴	MOCVD	\$120	\$240	--
Other Fees				
Service	Description	Rate		
Staff Support	Training Recharge \$/hr	\$75.00		
	Staff Support \$/hr	\$75.00		
Stores	Inventory / Subscriptions	Refer to Stores price list sheets		

- (1) **FY18 Rates:** All rates are subject to the University Facilities & Administration (F&A) overhead which for FY18 is 57% for industry and 8% for most other external (see <https://doresearch.stanford.edu>). Overhead is applied by the University upon billing, so will not appear in Badger Financial Reports.
- (2) **Cleanroom Soft Cap:** Cleanroom tools come under the Soft Cap fee structure. The exceptions are:
 - a. **Epi2/2B** are excluded from the Soft Cap and charged on a straight hourly basis.
 - b. **Precious Metals** use is charged by gram and based on the weighted market price for this year, rounded up to the nearest \$1: Gold-\$41; Platinum-\$32, Iridium-\$25; Palladium-\$25;. Precious metal use is incorporated into the equipment charges for metallization tools.
 - c. **No-Charge Tools:**
 - i. Analytical tools: optical/IR microscopes, stylus profilometers (p2, alphastep 500), ellipsometer, nanospecs 1/2, surfscan4500
 - ii. Ovens: 90C post-spin bake, 110C pre bake, 150C singe, and white-oven
 - iii. Solvent benches: All lithography wet benches (except headway2), wbflexcorr (except hot plate & sonicator)
 - iv. Miscellaneous: mask cleaner, uv cure
- (3) **Rate Categories:** Academic rates apply to: Stanford/SLAC, government and non-profit institutions, and entities under the SNF Research Participation program. Companies supported by a verifiable SBIR award are eligible for the SBIR rate (Cleanroom only.) All other independent entities are charged the Industrial rate.
- (4) **ExFab and MOCVD labs:** Equipment is charged on a straight hourly basis, no soft cap. Equipment is listed with rate class below. Precious metals are charged as a Stores item as follows: Gold-\$0.90/nm, Platinum-\$0.70/nm, Iridium-\$0.50/nm, Palladium- \$0.50/nm. MOCVD precursors use in excess of 3 grams per run will be charged at \$40/gram. This fee applies to the following precursors and is incorporated into equipment charges: UDMHy, TBP, and TBAs.
- (5) **ExFab No-Charge tools:** Modela Micromill, Manual Micro Drill Press, Alphastep Profilometer, Rudolph EL4 Ellipsometer, Biologic Potentiometer, Sensofar Optical Profilometer, Centrifuge, Dispenser, Sonicator, Heat Seal Press.

ExFab Lab Equipment List ^{4,5}				
Area	Tool	Rate Category		
		Rate Class	Academic	Industry
Deposition	Aixtron Graphene Furnace	5B	\$35	\$70
	Carbon Nanotube Furnace	5B	\$35	\$70
	Hummer Evaporator	5B	\$35	\$70
	Parylene Coater	5B	\$35	\$70
	Lesker Sputter	5A	\$35	\$105
	AJA Evaporator	5A	\$35	\$105
Patterning	3D Wax Printer	1	\$3	\$9
	Nanoinkjet	3	\$10	\$30
	Raith EBeam Writer	Premium	\$70	\$140
	Heidelberg MLA 150	5A	\$35	\$105
	Nanoscribe 3D Printer	5A	\$35	\$105
	Optomec Aerosol Jet Printer	5A	\$35	\$105
Machining	Chemical Mechanical Polish	5B	\$35	\$70
	DISCO Backgrinder	5A	\$35	\$70
	DISCO Wafersaw	5A	\$35	\$105
	Minitex Micromill	3	\$10	\$30
	Thermolyne Muffle Furnace	1	\$3	\$9
	Laser Cutter	5A	\$35	\$105
Controlled Environment	Fumehood #1-4	1	\$3	\$9
	Glovebox-Left/Right	1	\$3	\$9
Characterization	AFM #2	3	\$10	\$30
	AFM-Asylum	3	\$10	\$30
	Cytoviva Hyperspectral Analyzer	4	\$20	\$60
	Jasco-UV/Vis/NIR Spectrometer	4	\$20	\$60
	Malvern Dynamic Light Scatter	4	\$20	\$60
	Micromanipulator Probe Station	2	\$5	\$15
	Sinton Lifetime Tester	2	\$5	\$15
Wet Processing	Headway 3 Manual Spinner	3	\$10	\$30
	Laurell Develop/Etch Processer	3	\$10	\$30
	Micromist Electro Spray Coater	3	\$10	\$30
	Wet Bench Corrosives	3	\$10	\$30
	Wet Bench Solvents	3	\$10	\$30
	Flipchip Bonder	5A	\$35	\$105
	SCS G3 Spincoater	3	\$10	\$30
	Thermoscientific Oven	2	\$5	\$15
	Thinky Mixer	3	\$10	\$30
	Plasma Etcher	4	\$20	\$60
	Hotplate-1	2	\$5	\$15
	YES HMDS Prime Oven #3	5A	\$35	\$105
MOCVD Lab Equipment List ⁴				
Area	Tool	Rate Category		
		Academic	Industrial	
MOCVD	Aixtron 200 (GaAs)	\$120	\$240	
	Aixtron CCS (GaN)	\$120	\$240	