

Center for Nanoscale Systems (CNS) – Harvard University
User Fee Structure (effective 12/1/07)

Imaging and Analysis Facilities – ACADEMIC RATES

<u>INSTRUMENT</u>	<u>Rate/ Unit</u>	<u>Staff Assistance Rate/Unit</u>	<u>Quarterly Cap Eligible</u>	<u>Comments</u>
HAR-001 JEOL 2010 FEG TEM/STEM	\$50/hour	\$50/hour	N	
HAR-027 JEOL 2100 TEM	\$45/hour	\$50/hour	N	
SEMs (LEO SEM "A", "B", Zeiss Ultra55, Zeiss Supra55, Zeiss EVO)	\$32/hour	\$50/hour	N	No Evo charge for OEB Dept. users
HAR-004 Quanta 200 ESEM	\$32/hour	\$50/hour	N	No Charge for OEB Dept. users
B15A Sample prep tools Examples: Precision Ion Mill, Sputter Coater	\$5/use	\$50/hour	N	
HAR-017 Ultramicrotome	\$10/hour	\$50/hour	N	
Imaging and Analysis Staff Assistance	N/A	\$50/hour	N	
Imaging and Analysis Remote Assistance	N/A	\$150/hour	N	

1. The staff assistance rate is in addition to the normal rate when CNS staff assists user on a tool. (ex. 1 hr of assisted HAR-001 use is a total of \$100/hr.)

2. Training counts as assisted use if it is one-on-one training. There is no charge for training if it is a group or multiple-user training.

3. User will be billed for any unused time reserved in scheduling tool. If work is conducted at time different than reserved, User will be billed for both reserved time (unavailable for other users) and for actual used time.

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Materials Synthesis Facilities – ACADEMIC RATES

<u>INSTRUMENT</u>	<u>Rate/Unit</u>	<u>Staff Assistance Rate/Unit</u>	<u>Quarterly Cap Eligible</u>	<u>Comments</u>
HAR-007 XPS ESCA SSX-100	\$30/hour	Included	N	Assistance is required
SPM-3 AFM/STM: Omicron VT-25	\$200/day	\$50/hour	N	Minimum charge is one day
HAR-014 DualBeam 235 FIB/SEM	\$60/hour	\$50/hour	N	
FIB-02 Zeiss Nvision40 FIB	\$60/hour	\$50/hour	N	
HAR-018 Confocal/multiphoton microscopes	\$30/hour	\$50/hour	N	
SPM-1 Asylum AFM I SPM-2 Asylum AFM II (Coax)	\$20/hour	\$50/hour	N	
SPM-4 Witek NSOM	\$20/hour	\$50/hour	N	
MSF-03 Bruker X-Ray Diffractometer	\$20/hour	\$50/hour	N	
X-Tek HMXST 225 microCT	\$20/hour	\$50/hour	N	4
SW-1 DISCO dicing saw	\$20/hour	\$50/hour	N	
G05 Bio-Materials facility	\$20/day	\$50/hour	N	5
G06 Chemical Nanotechnology and SLF facility	\$20/day	\$50/hour	N	5
Materials Synthesis Staff Assistance	N/A	\$50/hour	N	
Materials Synthesis Remote Assistance	N/A	\$150/hour	N	

1. Staff assistance rate is in addition to the normal rate when CNS staff assists user on a tool. (ex. 1 hr of assisted HAR-018 use is a total of \$80/hr.)
2. Training counts as assisted use if it is one-on-one training. There is no charge for training if it is a group or multiple-user training.
3. Any CNS staff assistance in the preparation of samples using any Materials Synthesis Facility tools not listed above is charged the Materials Synthesis Staff Assistance rate.
4. Some OEB and MCZ users are pre-paid. Please contact CNS for further information.
5. Daily rate includes use of tools not listed as hourly rate.
6. User will be billed for any unused time reserved in scheduling tool. If work is conducted at time different than reserved, User will be billed for both reserved time (unavailable for other users) and for actual used time.

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Nanofabrication Facilities (NF) – ACADEMIC RATES

<u>INSTRUMENT</u>	<u>Rate/Unit</u>	<u>Staff Assistance Rate/Unit</u>	<u>Quarterly Cap Eligible</u>	<u>Comments</u>
NF-01 General McKay Cleanroom Access	\$100/day	\$50/hour	Y	1
General LISE Cleanroom Access	\$40/hr max \$120/day	\$50/hour	Y	1,7
RIE-06 Nexx RIE	\$50/hour	\$50/hour	Y	
CVD-02 Nexx PECVD	\$50/hour	\$50/hour	Y	
CVD-01 CVD LPCVD	\$80/hour	\$50/hour	Y	
RIE-07 Unaxis Shuttleline ICP RIE	\$50/hour	\$50/hour	Y	
SP-2 AJA Sputtering System	\$50/hour	\$50/hour	Y	
SPM-5 Veeco AFM	\$20/hour	\$50/hour	Y	
Toho FLX-2320 Stress Measurement System	\$10/hour	\$50/hour	Y	
EL-4 Elionix STS7000 E-Beam	\$55/hour	\$50/hour	N	
EL-1 Raith-150 E-Beam	\$55/hour	\$50/hour	N	
EL-2 JEOL 6400 E-Beam	\$30/hour	\$50/hour	N	
EL-3 JEOL 7000F E-Beam	\$55/hour	\$50/hour	N	
MW-1 Heidelberg Mask Writer	\$90/hour	Included	N	2
Nanofab Staff Assistance	n/a	\$50/hour	N	3,4
Nanofab Remote Assistance	n/a	\$150/hour	N	
Quarterly Cap (Quarter/User)	\$2,700			5

1. Access fee covers all cleanroom tools not otherwise listed on the rate sheet.
2. Fee for the Heidelberg Mask Writer does not include a \$25 per mask charge that will be added to the total.
3. Staff Assistance on any NF tools not listed above is considered General Cleanroom Access Staff Assistance.
4. Training and qualification with CNS Nanofabrication Facility staff counts as Assisted Use if conducted one-on-one.
5. Once the Quarterly Cap is reached by a User, they can use all Cap eligible tools free of charge until the end of the quarter. Caps is strictly per User, not per PI or per Project. Quarters are based upon Harvard's fiscal year. Quarter start dates are the 1st of July, October, January, April.
6. User will be billed for any unused time reserved in scheduling tool. If work is conducted at time different than reserved, User will be billed for both reserved time (unavailable for other users) and for actual used time.
7. Beginning of LISE cleanroom access billing will be after 12/1/07 – to be announced.