

Center for Nanoscale Systems (CNS) – Harvard University
ACADEMIC RATES (effective 09/01/12, subject to change)

Imaging and Analysis Facilities

INSTRUMENT	Rate/ Unit ⁵	On-Site Staff Assistance	Remote Staff Assistance	Notes
TEM-6 Zeiss Libra200 a-corrected FEG STEM TEM-7 Zeiss Libra200 a-corrected FEG TEM	\$55/hour	\$55/hour	\$165/hour	
TEM-5 Technai Cryo-Bio FEG TEM	\$65/hour	\$55/hour	\$165/hour	
HAR-001 JEOL 2010 FEG TEM/STEM	\$49/hour	\$55/hour	\$165/hour	
HAR-027 JEOL 2100 TEM	\$45/hour	\$55/hour	\$165/hour	
TEM-8 Libra120	\$40/hour	\$55/hour	\$165/hour	
SEM-4,5,8 (Ultra55, Supra55, Ultra Plus)	\$39/hour	\$55/hour	\$165/hour	
SEM-6, HAR-2 (Zeiss EVO, LEO SEM)	\$35/hour	\$55/hour	\$165/hour	6
HAR-34 Freeze Etching System	\$55/hour	\$55/hour	\$165/hour	
HAR-017 Ultramicrotome	\$20/hour	\$55/hour	\$165/hour	
HAR-039 1040 NanoMill	\$33/hour	\$55/hour	\$165/hour	
HAR-037 1010 Dual beam Ion-Mill	\$22/hour	\$55/hour	\$165/hour	
HAR-024 Cressington Sputter Coater	\$20/15 min	\$55/hour	\$165/hour	
HAR-030 Baltec Sputter Coater	\$15/15 min	\$55/hour	\$165/hour	
CD-2 Critical Point Dryer	\$15/15 min	\$55/hour	\$165/hour	
HAR-043 Cryoplunge	\$15/15 min	\$55/hour	\$165/hour	
HAR-009 Gatan 691 Ion Mill	\$20/hour	\$55/hour	\$165/hour	
HAR-008, HAR-040 (B15A) Plasma Cleaners	\$20/hour	\$55/hour	\$165/hour	
HAR-049 Cross-section Polisher	\$20/hour	\$55/hour	\$165/hour	
B15A, B15L (Dark Room) Daily Entry Charges	\$30/day	\$55/hour	\$165/hour	7
APT-01 3D Atom Probe	\$75/hour	\$55/hour	\$165/hour	8
General Imaging Staff Assistance	N/A	\$55/hour	\$165/hour	4
Monthly Cap / user Harvard Monthly Cap / user Non-Harvard)	\$2,178 Harvard \$2,614 Non-Harv	none	none	5

- Self-use is charged at the base rate.
- The on-site or remote staff assistance rates are in addition to any equipment rate.
- In addition to actual time used, users will be charged for all unused time reserved in the Scheduling Tool. Charges for no-show reservations are not included in the monthly cap.
- CNS staff assistance for all equipment training and certification, preparation of samples, or use of tools not listed above is charged at the General Staff Assistance rate. On-site and remote assistance are not included in cap.
- 20% OH added to total monthly charge for all non-Harvard users and all users not paying with Harvard 33-digit code.
- The LEO A SEM is located in the LISE Cleanroom. The General LISE Cleanroom Access charge applies when using this tool (See Nanofabrication Facilities Rate Sheet).
- Daily room charge (B15A or Darkroom) is applied in addition to separate hourly or per use tool charges.
- Minimum 6 hour reservation.

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Nanomaterials Facilities

INSTRUMENT	Rate/ Unit ⁵	On-Site Staff Assistance	Remote Staff Assistance	Notes
FIB-2,3 Nvision40 FIBs	\$75/hour	\$55/hour	\$165/hour	
G05 Bio-Materials Facility	\$30/day	\$55/hour	\$165/hour	6
G06 Chemical Nanotechnology and SLF Facility	\$25/day	\$55/hour	\$165/hour	6
HAR-007 XPS/ESCA XRA-004 XPS/ESCA	\$30/hour	\$55/hour	\$165/hour	
HAR-028 Leica DM IRB Live Cell Microscope	\$20/hour	\$55/hour	\$165/hour	
MS-3 TIRF Laser Microscope	\$30/hour	\$55/hour	\$165/hour	
MS-18 Olympus FV300 Laser Scanning Confocal MS-20 Zeiss 310 Laser Scanning Confocal	\$30/hour	\$55/hour	\$165/hour	
LZR-1 Multi-Photon/CARS laser system	\$10/hour	\$55/hour	\$165/hour	
LZR-2 Versalaser Cutting / Engraving System	\$20/hour	\$55/hour	\$165/hour	
NPF-1 DelsaNano Particle Size Analyzer	\$10/hour	\$55/hour	\$165/hour	
NPF-6 Vir-Tis Freeze Dryer/Lyophilizer	\$10/hour	\$55/hour	\$165/hour	
NPF-7 Multisizer 3 Coulter Counter	\$10/hour	\$55/hour	\$165/hour	
SPM-1 Asylum AFM I	\$25/hour	\$55/hour	\$165/hour	
SPM-2 Asylum AFM II (Coax)	\$25/hour	\$55/hour	\$165/hour	
SPM-4 Witek NSOM	\$25/hour	\$55/hour	\$165/hour	
SW-1 DISCO Dicing Saw	\$20/hour	\$55/hour	\$165/hour	
XRA-2 X-Tek HMXST 225 MicroCT	\$25/hour	\$55/hour	\$165/hour	
XRA-3 XRF	\$20/hour	\$55/hour	\$165/hour	
MET-3, MET-10 FTIR	\$30/hour	\$55/hour	\$165/hour	
MET-8 UV Photoluminescence Spectroscopy	\$30/hour	\$55/hour	\$165/hour	
MET-11 Multi-Line Raman Spectroscopy System	\$30/hour	\$55/hour	\$165/hour	
General Nanomaterials Staff Assistance	N/A	\$55/hour	\$165/hour	
Monthly Cap / user (Harvard) Monthly Cap / user (Non-Harvard)	\$2,178 Harvard \$2,614 Non-Harv	none	none	5

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- 20% OH added to total monthly charge for all non-Harvard users and all users not paying with Harvard 33-digit code.
- Daily room charges (G05, G06) are applied in addition to separate hourly or per use tool charges.

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Nanofabrication Facilities

INSTRUMENT	Rate/ Unit ⁵	On-Site Staff Assistance	Remote Staff Assistance	Notes
General LISE Cleanroom Access	\$31/hr max \$93/day	\$55/hour	\$165/hour	6, 10
ALD-1 Savannah Atomic Layer Deposition	\$18/hour	\$55/hour	\$165/hour	
CVD-2 Nexx PECVD	\$40/hour	\$55/hour	\$165/hour	
CVD-3 STS PECVD	\$50/hour	\$55/hour	\$165/hour	
CVD-4,5,9,10 Atmospheric Furnace Tubes	\$40/hour	\$55/hour	\$165/hour	
CVD-6,7,8,11,13 Low-Pressure Furnace Tubes	\$44/hour	\$55/hour	\$165/hour	7
RIE-1 South Bay RIE	\$10/hour	\$55/hour	\$165/hour	
RIE-6 Nexx RIE	\$40/hour	\$55/hour	\$165/hour	
RIE-7 Unaxis Shuttleline ICP RIE	\$44/hour	\$55/hour	\$165/hour	
RIE-8 STS ICP RIE	\$50/hour	\$55/hour	\$165/hour	
SPM-5 Veeco AFM	\$19/hour	\$55/hour	\$165/hour	
MET-1 Toho Stress Measurement System	\$9/hour	\$55/hour	\$165/hour	
EE-4 Denton e-beam Evaporator	\$50/hour	\$55/hour	\$165/hour	
SP-2,3 6-target/3-target Sputtering Systems	\$50/hour	\$55/hour	\$165/hour	
EL-1 Raith-150 e-beam Lithography	\$44/hour	\$55/hour	\$165/hour	
EL-3 JEOL 7000F e-beam Lithography	\$39/hour	\$55/hour	\$165/hour	
EL-4,5 Elionix e-beam Lithography	\$53/hour	\$55/hour	\$165/hour	
MW-1 Heidelberg Mask Writer	\$40/hour	\$55/hour	\$165/hour	7
PB-2 Lakeshore 1.5K Probe Station	\$25/hour	\$55/hour	\$165/hour	9
SW-2 Loomis Scriber	\$20/hour	\$55/hour	\$165/hour	
WB-1 Wire Bonder	\$20/hour	\$55/hour	\$165/hour	
MET-5 Hall / Van der Pauw	\$20/hour	\$55/hour	\$165/hour	
FCB-1 Flip Chip Bonder	\$18/hour	\$55/hour	\$165/hour	
SW-3 Optical Fiber Fusion Splicer	\$44/hour	\$55/hour	\$165/hour	11
TE1, TE3, TE4, TE5, EE1, EE2, EE3 Evaporators	\$10/hr	\$55/hour	\$165/hour	8
General Nanofab Staff Assistance	n/a	\$55/hour	\$165/hour	10
RTP-1, 2 Rapid Thermal Processors	\$15	\$55/hour	\$165/hour	
Monthly Cap / user (Harvard) Monthly Cap / user (Non-Harvard)	\$2,178 Harvard \$2,614 Non-Harv	none	none	5

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6. General LISE Cleanroom Access fee is charged for all entries up to the daily maximum. The General Access fee also covers all cleanroom tools not otherwise listed on the rate sheet as having a separate charge.
7. Does not include masks or wafers. Available from staff for additional fee. Materials costs not included in monthly cap.
8. Market rates apply for CNS-supplied crucible metal. Charges based on thickness used. Materials costs not included in monthly cap.
9. User must bring their own liquid helium (see tool web page for details).
10. General LISE Cleanroom Access Fee is not charged for Remote Staff Assistance usage.
11. Staff support is required, additional fee.