# Imaging and Analysis Facilities

<table>
<thead>
<tr>
<th>INSTRUMENT</th>
<th>Rate/Unit</th>
<th>On-Site Staff Assistance</th>
<th>Remote Staff Assistance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEM-6 Zeiss Libra200 a-corrected FEG STEM</td>
<td>$50/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>TEM-7 Zeiss Libra200 a-corrected FEG TEM</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>TEM-5 Technai Cryo-Bio FEG TEM</td>
<td>$60/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-001 JEOL 2010 FEG TEM/STEM</td>
<td>$44/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-027 JEOL 2100 TEM</td>
<td>$40/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SEMs (Ultra55, Supra55)</td>
<td>$35/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SEMs (LEO SEM, Zeiss EVO)</td>
<td>$30/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SEM-7 Orion Helium Ion Microscope</td>
<td>$29/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-34 Freeze Etching System</td>
<td>$55/hour</td>
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<td>$165/hour</td>
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<tr>
<td>HAR-017 Ultramicrotome</td>
<td>$20/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>1040 NanoMill</td>
<td>$33/use</td>
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<td>$165/hour</td>
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<tr>
<td>HAR-037 1010 Dual beam Ion-mill</td>
<td>$22/use</td>
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<tr>
<td>HAR-024 Cressington Sputter Coater</td>
<td>$20/use</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-030 Baltec Sputter Coater</td>
<td>$15/use</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>CD-2 Critical Point Dryer</td>
<td>$15/use</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-019 Cryoplunge</td>
<td>$15/use</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-009 Gatan 691 Ion Mill</td>
<td>$15/use</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-008 Plasma Cleaner</td>
<td>$15/use</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>B15A Daily Entry Charge</td>
<td>$20/day</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>General Imaging Staff Assistance</td>
<td>N/A</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td></td>
</tr>
</tbody>
</table>

1. Self-use is charged at the base rate.
2. The on-site or remote staff assistance rates are in addition to any equipment rate.
3. In addition to actual time used in the logbook, users will be charged for all unused time reserved in the Scheduling Tool.
4. 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.
5. 20% OH added to total monthly charge for all non-Harvard users and all users not paying with Harvard 33-digit code.
6. 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).
7. Daily room charge (B15A) is applied in addition to separate hourly or per use tool charges.
<table>
<thead>
<tr>
<th>INSTRUMENT</th>
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<th>On-Site Staff Assistance</th>
<th>Remote Staff Assistance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIB-2 Zeiss Nvision40 FIB (in basement)</td>
<td>$60/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>FIB-3 Zeiss Nvision40 FIB (in cleanroom)</td>
<td>$50/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>G05 Bio-Materials Facility</td>
<td>$20/day</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>G06 Chemical Nanotechnology and SLF Facility</td>
<td>$20/day</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-007 XPS ESCA SSX-100</td>
<td>$26/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td>Assistance is required</td>
</tr>
<tr>
<td>HAR-018 Zeiss LSM510 Laser Scanning Confocal</td>
<td>$26/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-028 Leica DM IRB Live Cell Microscope</td>
<td>$20/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>MS-3 TIRF Laser Microscope</td>
<td>$26/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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</tr>
<tr>
<td>MS-4 Olympus FV300 Laser Scanning Confocal</td>
<td>$26/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>LZR-2 Versalaser Cutting / Engraving System</td>
<td>$20/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SPM-1 Asylum AFM I</td>
<td>$25/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SPM-2 Asylum AFM II (Coax)</td>
<td>$25/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SPM-4 Witek NSOM</td>
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<td>$165/hour</td>
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<tr>
<td>SW-1 DISCO Dicing Saw</td>
<td>$20/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<td>XRA-2 X-Tek HMXST 225 MicroCT</td>
<td>$20/hour</td>
<td>$55/hour</td>
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<td>XRA-3 XRF</td>
<td>$14/hour</td>
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<tr>
<td>General Materials Staff Assistance</td>
<td>N/A</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td></td>
</tr>
</tbody>
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5. 20% OH added to total monthly charge for all non-Harvard users and all users not paying with Harvard 33-digit code.
6. The FIB-3 is located in the LISE Cleanroom. The General LISE Cleanroom Access charge applies when using this tool (See Nanofabrication Facilities Rate Sheet).
7. Daily room charges (G05, G06) are applied in addition to separate hourly or per use tool charges.
## Center for Nanoscale Systems (CNS) – Harvard University

### ACADEMIC RATES (effective 09/01/10, subject to change)

**Nanofabrication Facilities**

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<tr>
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<th>On-Site Staff Assistance</th>
<th>Remote Staff Assistance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>General LISE Cleanroom Access</td>
<td>$30/hr max $90/day</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td>6, 10</td>
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<tr>
<td>ALD-1 Savannah Atomic Layer Deposition</td>
<td>$18/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>CVD-2 Nexx PECVD</td>
<td>$40/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>CVD-3 STS PECVD</td>
<td>$50/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>CVD-4,5,9,10 Atmospheric Furnace Tubes</td>
<td>$40/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>CVD-6,7,8,11 Low-Pressure Furnace Tubes</td>
<td>$44/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>RIE-6 Nexx RIE</td>
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<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>RIE-7 Unaxis Shutteline ICP RIE</td>
<td>$44/hour</td>
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<td>$165/hour</td>
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<td>RIE-8 STS ICP RIE</td>
<td>$50/hour</td>
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<tr>
<td>SPM-5 Veeco AFM</td>
<td>$16/hour</td>
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<tr>
<td>MET-1 Toho Stress Measurement System</td>
<td>$9/hour</td>
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<tr>
<td>EE-3 Sharon e-beam Evaporator</td>
<td>see note</td>
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<tr>
<td>EE-4 Denton e-beam Evaporator</td>
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<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SP-2 AJA Sputtering System</td>
<td>$44/hour</td>
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<td>$165/hour</td>
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<tr>
<td>EL-1 Raith-150 e-Beam Lithography</td>
<td>$40/hour</td>
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<td>$165/hour</td>
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<tr>
<td>EL-3 JEOL 7000F e-Beam Lithography</td>
<td>$35/hour</td>
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<tr>
<td>EL-4 Elionix STS7000 e-Beam Lithography</td>
<td>$48/hour</td>
<td>$50/hour</td>
<td>$150/hour</td>
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<tr>
<td>MW-1 Heidelberg Mask Writer</td>
<td>$85/hour</td>
<td>Included</td>
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<tr>
<td>PB-2 Lakeshore 1.5K Probe Station</td>
<td>$25/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SW-2 Loomis Scribe</td>
<td>$20/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>WB-1 Wire Bonder</td>
<td>$20/hour</td>
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<td>$165/hour</td>
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<tr>
<td>FCB-1 Flip Chip Bonder</td>
<td>$18/hour</td>
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<td>SW-3 Optical Fiber Fusion Splicer</td>
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<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>TE 3,4,5 Thermal Evaporators</td>
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<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>General Nanofab Staff Assistance</td>
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<td>$165/hour</td>
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<tr>
<td>Monthly Cap / user (Harvard/Non-Harvard)</td>
<td>$1,800 Harvard</td>
<td>$2160 Non-Harv</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
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5. 20% OH added to total monthly charge for all non-Harvard users and all users not paying with Harvard 33-digit code.
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.
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.

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