## 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>
<td></td>
</tr>
<tr>
<td>TEM-7 Zeiss Libra200 a-corrected FEG TEM</td>
<td>$60/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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</tr>
<tr>
<td>TEM-5 Technai Cryo-Bio FEG TEM</td>
<td>$44/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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</tr>
<tr>
<td>TEM-5 Technai Cryo-Bio FEG TEM</td>
<td>$60/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td></td>
</tr>
<tr>
<td>TEM-8 Libra120</td>
<td>$35/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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</tr>
<tr>
<td>SEMs (Ultra55, Supra55, Ultra Plus)</td>
<td>$35/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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</tr>
<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>HAR-34 Freeze Etching System</td>
<td>$55/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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</tr>
<tr>
<td>HAR-017 Ultramicrotome</td>
<td>$20/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>HAR-039 1040 NanoMill</td>
<td>$33/use</td>
<td>$55/hour</td>
<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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<td>$165/hour</td>
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<tr>
<td>HAR-024 Cressington Sputter Coater</td>
<td>$20/use</td>
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<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-043 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, HAR-040 (B15A) Plasma Cleaners</td>
<td>$15/use</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>B15A, B15L (Dark Room) Daily Entry Charges</td>
<td>$20/day</td>
<td>$55/hour</td>
<td>$165/hour</td>
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</tr>
<tr>
<td>General Imaging Staff Assistance</td>
<td>N/A</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td></td>
</tr>
<tr>
<td>Monthly Cap / user Harvard</td>
<td>$1,980</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td></td>
</tr>
<tr>
<td>Monthly Cap / user (Non-Harvard)</td>
<td>$2376</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 or Darkroom) is applied in addition to separate hourly or per use tool charges.
### Materials Synthesis and Characterization 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>FIB-2,3 Zeiss Nvision40 FIBs</td>
<td>$75/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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</tr>
<tr>
<td>G05 Bio-Materials Facility</td>
<td>$20/day</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td>6</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>
<td>6</td>
</tr>
<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-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>
<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-18 Olympus FV300 Laser Scanning Confocal</td>
<td>$26/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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</tr>
<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>
<tr>
<td>NPF-1 DelsaNano Particle Size Analyzer</td>
<td>$10/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>NPF-6 Vir-Tis Freeze Dryer/Lyophilizer</td>
<td>$10/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>
<td>$20/hour</td>
<td>$55/hour</td>
<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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<tr>
<td>XRA-2 X-Tek HMXST 225 MicroCT</td>
<td>$20/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>XRA-3 XRF</td>
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<td>$165/hour</td>
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<tr>
<td>MET-3 FTIR</td>
<td>$30/hour</td>
<td>$55/hour</td>
<td>$165/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>
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<tr>
<td>Monthly Cap / user Harvard</td>
<td>$1,980 Harvard</td>
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<td>$2,376 Non-Harvard</td>
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<tr>
<td>Monthly Cap / user Non-Harvard</td>
<td></td>
<td>none</td>
<td>none</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. Daily room charges (G05, G06) are applied in addition to separate hourly or per use tool charges.
## Nanofabrication 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>General LISE Cleanroom Access</td>
<td>$30/hr</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>
<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-6,7,8,11,13 Low-Pressure Furnace Tubes</td>
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<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>RIE-1 South Bay RIE</td>
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<tr>
<td>RIE-6 Nexx RIE</td>
<td>$40/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>RIE-7 Unaxis Shuttleline ICP RIE</td>
<td>$44/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>RIE-8 STS ICP RIE</td>
<td>$50/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SPM-5 Veeco AFM</td>
<td>$16/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>MET-1 Toho Stress Measurement System</td>
<td>$9/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>EE-3 Sharon e-beam Evaporator</td>
<td>see note</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td>8</td>
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<tr>
<td>EE-4 Denton e-beam Evaporator</td>
<td>$50/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SP-2,3 6-target/3-target Sputtering Systems</td>
<td>$50/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>EL-1 Raith-150 e-Beam Lithography</td>
<td>$40/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>EL-3 JEOL 7000F e-Beam Lithography</td>
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<td>$165/hour</td>
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<tr>
<td>EL-4 Elionix STS7000 e-Beam Lithography</td>
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<tr>
<td>MW-1 Heidelberg Mask Writer</td>
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<td>First hr Included</td>
<td>$165/hour</td>
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<tr>
<td>PB-2 Lakeshore 1.5K Probe Station</td>
<td>$25/hour</td>
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<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>
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<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>MET-5 Hall / Van der Pauw</td>
<td>$20/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>FCB-1 Flip Chip Bonder</td>
<td>$18/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>SW-3 Optical Fiber Fusion Splicer</td>
<td>$44/hour</td>
<td>$55/hour</td>
<td>$165/hour</td>
<td>11</td>
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<tr>
<td>TE1, TE3, TE4, TE5, EE1, EE2 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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<tr>
<td>RTP-1, 2 Rapid Thermal Processors</td>
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<td>$55/hour</td>
<td>$165/hour</td>
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<tr>
<td>Monthly Cap / user Harvard</td>
<td>$1,980</td>
<td>none</td>
<td>$165/hour</td>
<td>5</td>
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<tr>
<td>Monthly Cap / user Non-Harvard</td>
<td>$2,376</td>
<td>none</td>
<td>$165/hour</td>
<td></td>
</tr>
</tbody>
</table>

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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.