**NCF Rate Schedule for EXTERNAL Users**

**Effective July 1, 2023 – June 30, 2024 (Rates Subject to Change)**

The purpose of the NCF rate schedule is to help offset the annual cost of operations by collecting a fee based upon usage.

Effective July 2018, the Brown internal user rate for all IMNI facilities will be extended to Brown University Hospital Affiliates and Rhode Island Academic Institutions (Please refer to the Rate Schedule for Internal Users).

All prospective external organizations should review the process outlined on [IMNI.brown.edu](http://IMNI.brown.edu) to become an authorized external user.

### Nanofabrication Central Facility (NCF)

The usage calculation is based on a per use method for all major and supportive instruments. The clean room usage is charged per day, with a clean room exemption (no clean room charge) when used in conjunction with a major instrument during the same visit.

<table>
<thead>
<tr>
<th>Description</th>
<th>External Academic (non-profit)</th>
<th>External Commercial (for profit)</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clean Room Only:</strong> This includes the use of chemicals, spinner, hot plate, and hood (without the use of any major or supportive instruments).</td>
<td>$78.00</td>
<td>$183.00</td>
<td>per day</td>
</tr>
</tbody>
</table>

**Major Instruments:** The use of major instruments also includes the necessary chemical treatments.

- **Heidelberg MLA150 Maskless Aligner**: $158.00 $263.00 per use
- **Karl Suss MJB3 UV300 Mask Aligner**: $158.00 $263.00 per use
- **NIL Technology Nano Imprinter**: $158.00 $263.00 per use
- **Newport-Oriel Flexible Mylar-Mask Lithography System**: $158.00 $263.00 per use
- **Cambridge NanoTech Fiji F200 Atomic Layer Deposition System**: $158.00 $263.00 per use
- **Electron Beam Evaporator**: $158.00 $263.00 per use
- **Lesker Lab-18**: $158.00 $263.00 per use
- **Angstrom Multi-Target Sputtering System**: $158.00 $263.00 per use
- **Angstrom Organic Evaporator**: $158.00 $263.00 per use
- **PlasmaTherm Model 790 RIE/PECVD System**: $158.00 $263.00 per use
- **SPTS LPX Inductively Coupled Plasma RIE System**: $158.00 $263.00 per use
- **PlasmaTherm Vision 320 RIE System**: $158.00 $263.00 per use

**Supportive Instruments:**

- **RTA Rapid Thermal Annealer**: $41.00 $146.00 per use
- **Wet & Dry Oxidation Furnace**: $41.00 $146.00 per use
- **Annealing & Drive-in Heat Treatment**: $41.00 $146.00 per use
- **Dektak3 - Profilometer**: $41.00 $146.00 per use
- **JA Woollam M-2000 Ellipsometer**: $41.00 $146.00 per use
### Instrument Assisted Use by Brown Facility Technical Staff:
Prior approval required. This is a self-use facility unless otherwise requested as part of the user agreement. Charge is in addition to the instrument time.

<table>
<thead>
<tr>
<th>Service</th>
<th>Rate 1</th>
<th>Rate 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithography</td>
<td>$104.00*</td>
<td>$209.00*</td>
</tr>
<tr>
<td>Thin Film Deposition</td>
<td></td>
<td></td>
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<tr>
<td>Plasma Etching</td>
<td></td>
<td></td>
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<tr>
<td>Furnaces</td>
<td></td>
<td></td>
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<tr>
<td>Characterization</td>
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</tbody>
</table>

*Plus Instrument Time