



BROWN

Instrumentation for Molecular
and Nanoscale Innovation

IMNI, Box M
(401) 863-6700
IMNI@brown.edu
IMNI.brown.edu

IMNI Rate Schedule for EXTERNAL Users Effective July 1, 2023 – June 30, 2024 (Rates Subject to Change)

IMNI consists of four core research facilities: Electron Microscopy Facility (EMF), NanoTools Facility (NTF), Nanofabrication Central Facility (NCF), and the Joint Engineering & Physics Instrument Shop (JEPIS). Each facility has a separate rate schedule 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 to become an authorized external user.

Electron Microscopy Facility (EMF)			
<p>There is a 30-minute minimum charge for all instruments, with the exception of the FIB Helios, which has a 1-hour minimum charge. After the minimum charge time, instruments are then billed in 15-minute increments. Any instrument run time that is less than the minimum will default to the minimum charge. FIB Helios reservations that are not cancelled within 24 hours of scheduled use may be subject to the 1-hour minimum charge. Sample preparation space and miscellaneous tools are available to authorized users as part of the usage fee.</p> <p>Effective 9/1/2019, an initial instrument training fee will be charge to new and existing users who wish to be trained on any of the EMF instruments. This initial training fee is in addition to the instrument time used.</p>			
Description	External Academic (non-profit)	External Commercial (for profit)	Unit
Transmission Electron Microscope (TEM): JEOL S(TEM) 2100F and FEI CM20	\$108.00	\$213.00	per hour
Scanning Electron Microscope (SEM): FEI Quattro S SEM and LEO 1530	\$93.00	\$198.00	per hour
Focused Ion Beam Electron Microscope (FIB): FEI Helios NanoLab 600	\$121.00	\$226.00	per hour
X-Ray Photoelectron Spectrometer (XPS): ThermoElectron K-Alpha XPS	\$75.00	\$180.00	per hour
Initial Instrument Training Fee: Required of new & existing users who wish to be trained on any of the EMF instruments. User sample required. Charge is in addition to the instrument time.	\$118.00*	\$223.00*	per hour
	*Plus Instrument Time		
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.	\$118.00*	\$223.00*	per hour
	*Plus Instrument Time		



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NanoTools Facility (NTF)

There is a 30-minute minimum charge for all instruments. After the minimum charge time, instruments are then billed in 15-minute increments. Any instrument run time that is less than the minimum will default to the minimum charge.

Effective 9/1/2019, an initial instrument training fee will be charge to new and existing users who wish to be trained on any of the NTF instruments. This initial training fee is in addition to the instrument time used.

Description	External Academic (non-profit)	External Commercial (for profit)	Unit
X-Ray Diffractometer (XRD): Bruker D8 Hi-Resolution XRD and Bruker D8 2-D XRD	\$59.00	\$129.00	per hour
Electron Paramagnetic Resonance (EPR): Bruker EMX+ EPR Spectrometer	\$48.00	\$83.00	per hour
Confocal Raman Microscope: WITEC - A3000M+; Confocal Raman Microscope	\$51.00	\$86.00	per hour
Atomic Force Microscope (AFM): Asylum MFP-3D Origin AFM	\$51.00	\$86.00	per hour
Initial Instrument Training Fee: Required of new & existing users who wish to be trained on any of the NTF instruments. User sample required. Charge is in addition to the instrument time.	\$85.00*	\$120.00*	per hour
	*Plus Instrument Time		
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.	\$85.00*	\$120.00*	per hour
	*Plus Instrument Time		



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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.

Description	External Academic (non-profit)	External Commercial (for profit)	Unit
Clean Room Only: This includes the use of chemicals, spinner, hot plate, and hood (without the use of any major or supportive instruments).	\$78.00	\$183.00	per day
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.	\$104.00*	\$209.00*	per hour
*Plus Instrument Time			

	Lithography
	Thin Film Deposition
	Plasma Etching
	Furnaces
	Characterization



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Joint Engineering & Physics Instrument Shop (JEPIS)

The usage calculation is based on an hourly rate, with actual usage being rounded to the quarter hour. Any materials purchased for a work order will be invoiced based on actual material costs.

Description	External Academic (non-profit)	External Commercial (for profit)	Unit
Machine Shop Labor Rate Cost of actual materials will be added (if applicable).	\$108.00*	\$143.00*	per hour
	*Plus actual materials		
Electrical Discharge Machine (EDM)	\$72.00	\$107.00	per hour