

**UNIVERSITY OF LOUISVILLE**  
**MICRO/NANO TECHNOLOGY CENTER RATES**  
**RATES EFFECTIVE FOR JUNE 1, 2025**



The link below provides access information to the MNTC.

<http://louisville.edu/micronano/users/how-to-become-a-user>

**Daily Access Fee for the Cleanroom:**

**Internal:** \$15/day

**Academic:** \$36/day

**Industry:** \$40/day

**MNTC Training & Service Rates (does not include equipment or consumables):**

**Internal:** \$72/hour

**Academic:** \$101/hour

**Industry:** 115/hour

**Cleanroom Equipment Usage Fee:** Usage rates defined below are for internal users that are part of the University of Louisville, academic users at other educational institutions and industry.

Equipment	Internal	Academic	Industry
Dektak Profilometer	\$0.37/min	\$0.52/ min	\$0.58/ min
Filmetrics Film Measurement System	\$0.37/min	\$0.52/ min	\$0.58/ min
Toho Thin Film Stress Measurement	\$0.37/min	\$0.52/ min	\$0.58/ min
Spinners (Photoresist & PDMS spinners)	\$0.37/min	\$0.52/ min	\$0.58/ min
Ultrasonic Bath	\$0.37/min	\$0.52/ min	\$0.58/ min
Zeiss Axioscope Optical Microscope	\$0.37/min	\$0.52/ min	\$0.58/ min
Goniometer	\$0.43/min	\$0.60/ min	\$0.70/ min
Flip Chip Bonder	\$0.93/min	\$1.30/min	\$1.50/min
QFI Thermal Imaging System	\$0.72/min	\$1.00/min	\$1.15/min
Zygo Optical Laser Profilometer	\$0.72/min	\$1.00/min	\$1.15/min
Vase Ellipsometer	\$0.72/min	\$1.00/min	\$1.15/min
Rapid Temperature Processing (RTP/RTA)	\$0.72/min	\$1.00/min	\$1.15/min
Ball/Wedge Wire Bonder	\$0.82/min	\$1.15/min	\$1.30/min
Hi-Speed Camera	\$0.82/min	\$1.15/min	\$1.30/min
March RIE	\$0.82/min	\$1.15/min	\$1.30/min
Ultramicrotome	\$0.82/min	\$1.15/min	\$1.30/min
ABM Mask Aligner	\$0.82/min	\$1.15/min	\$1.30/min
Suss Wafer Bonder	\$0.82/min	\$1.15/min	\$1.30/min
Molecular Vapor Deposition (MVD)	\$0.90/min	\$1.35/min	\$1.35/min
Oxford PECVD	\$0.98/min	\$1.38/min	\$1.57/min
SEM Sputter Coater	\$0.98/min	\$1.38/min	\$1.57/min
Lesker E-beam Evaporator **	\$0.98/min	\$1.38/min	\$1.57/min
Lesker PVD 75 Sputterer**	\$0.98/min	\$1.38/min	\$1.57/min
Suss Mask Aligner	\$0.98/min	\$1.38/min	\$1.57/min
Technics Sputterer	\$0.98/min	\$1.38/min	\$1.57/min
Trion RIE Metal Etcher	\$0.98/min	\$1.38/min	\$1.57/min
Critical Point Dryer	\$1.03/min	\$1.45/min	\$1.65/min
Beneq ALD	\$1.03/min	\$1.45/min	\$1.65/min
Atomic Force Microscope (AFM)	\$1.03/min	\$1.45/min	\$1.65/min

Xactix XeF <sub>2</sub> Isotropic Etcher	\$1.23/min	\$1.73/min	\$1.97/min
DRIE – Oxford Estrelas	\$1.23/min	\$1.73/min	\$1.97/min
Thermo Fisher Apreo SEM	\$1.23/min	\$1.73/min	\$1.97/min
Hitachi HT-7700 TEM***	\$1.23/min	\$1.73/min	\$1.97/min
Cryo EM Plunge Freezer	\$1.23/min	\$1.73/min	\$1.97/min
HF Vapor Etcher	\$3.60/min	\$5.03/min	\$5.77/min

\*\* Does not include deposition of precious metals gold and platinum.

\*\*\* Contact MNTC personnel prior to preparing TEM samples at [mntc@louisville.edu](mailto:mntc@louisville.edu)

Batch Processing Equipment	Internal	Academic	Industry
Blue M Oven	\$41/batch	\$57/batch	\$66/batch
HF-8 Axic Barrel Asher	\$41/batch	\$57/batch	\$66/batch
Tube Furnaces (Anneal, Oxidation, Diffusion, Trash)	\$57/batch	\$80/batch	\$91/batch
RCA Clean Bench	\$57/batch	\$80/batch	\$91/batch
Acid Wet Bench (BOE, Chrome Etch, Aluminum Etch)	\$57/batch	\$80/batch	\$91/batch
Base Wet Bench (KOH, TMAH)	\$57/batch	\$80/batch	\$91/batch
YES Polyimide Oven	\$57/batch	\$80/batch	\$91/batch
YES Image Reversal Oven	\$57/batch	\$80/batch	\$91/batch
Parylene Deposition System	\$62/batch	\$87/batch	\$99/batch

## ADDITIONAL FEES

Fees	Internal	Academic	Industry
Training	\$72/hour	\$101/hour	\$115/hour
Gold Deposition	\$100/gram	\$142/gram	\$162/gram
Platinum	\$42/g	\$60/gram	\$68/g
Dicing	\$77/per wafer \$1.28/minute after 1 <sup>st</sup> hour	\$108/per wafer \$1.28/minute after 1 <sup>st</sup> hour	\$128/per wafer \$2.05/minute after 1 <sup>st</sup> hour
Dewar Fill (LN <sub>2</sub> )	\$85/dewar fill	N/A	N/A

## PHOTOMASKS

Photomasks	Internal Users	Academic	Industry
<b>4" substrates</b> Resolution 6 um and larger	\$155	\$217	\$248
<b>6" substrates</b> Resolution 6 um and larger	\$257	\$338	\$386
<b>CAD File Development</b>	\$72/hour	\$101/hour	\$115/hour

Smaller resolutions can be obtained down to 1 um for photomasks. Contact us for details and pricing at [mntc@louisville.edu](mailto:mntc@louisville.edu)

**A usage fee is not assessed on the following items but does not include MNTC labor fees.**

Spin Rinse Dryer, Four Point Probe, Probe Station, Solvent Wet Bench & Developer Wet Bench

## CONSUMABLES/SUPPLIES

Item	Internal	Academic	External
Photoresist, Polyimide & SU8, bottle 50 g	\$60	\$85	\$94
4" Non-Oxidized Prime SSP Wafers	\$30/wafer	\$42/each	\$47/wafer
4" Oxidized Prime SSP Wafers	\$40/wafer	\$56/wafer	\$63/wafer
4" Non-Oxidized Prime DSP Wafers	\$40/wafer	\$56/wafer	\$63/wafer
4" Oxidized Prime DSP Wafers	\$50/wafer	\$71/wafer	\$79/wafer
4" Borofloat Wafers	\$30/wafer	\$42/each	\$47/wafer
4" Fused Silica Wafers	\$30/wafer	\$42/each	\$47/wafer
4" Wafer Container	\$5/each	\$7/each	\$8/each
4" Wafer Container Lid	\$5/each	\$7/each	\$8/each
6" Non-Oxidized Wafers	\$40/wafer	\$56/wafer	\$63/wafer
Cleanroom Notebook	\$15/each	\$21/each	\$24/each
Wafer Tweezers	\$55/each	\$78/each	\$83/each
Gel pack	\$10/each	\$14/each	\$15/each
EM Sample Prep - Lead Citrate	\$25/each	\$35/each	\$39/each
EM Sample Prep - Osmium Tetroxide	\$7/each	\$10/each	\$11/each
EM Sample Prep - TEM Grid	\$3/each	\$4/each	\$5/each
EM Sample Prep - Uranyl Acetate	\$6/each	\$9/each	\$10/each
EM Sample Prep – Tissue Processor	\$125/batch	\$176/batch	\$196/batch