

Nanofabrication Laboratory Rates

Equipment/Lab Service/Product	Academic Rates
Equipment Level 1	\$28.75
Equipment Level 2	\$34.70
Equipment Level 3	\$55.55
Equipment Level 4	\$92.55
Technical Staff Rate	\$57.85
LTCC Lab (includes profilometer)	\$17.35
LTCC CIP (per run + LTCC lab charge)	\$22.75
PZT Coating <= 1 um	\$500.88
PZT Coating > 1 um	\$724.63
(100) Oriented PZT Coating <= 1 um	\$555.88
(100) Oriented PZT Coating > 1 um	\$779.63
Solution 120 ml 0.4 M Mn-PZT 30/70	\$681.51
Solution LNO 0.2 M for 120-150 ml	\$429.45
Solution PZT 52/48	\$552.29
Training: Safety/Orientation	\$75.86
Ebeam Classroom Training	\$322.77
FESEM Classroom Training	\$57.38
Initial training session by video	\$19.72
Litho Lecture Training	\$47.34
Training: Equipment Level 1	\$121.48
Training: Equipment Level 2	\$144.03
Training: Equipment Level 3	\$302.78
Training: Equipment Level 4	\$324.42

Equipment Level 1
All Benches
Ellip: Filmtek
Four Point Probe
Litho: BCB/PDMS Oven
Litho: DUV Systems
Litho: Ebeam Fracture
Litho: Soft Lithography
Litho: USI Prism 300 Spray Coater
Microscopes
Sample Prep: LatticeAx 420

Equipment Level 3
Etch: Alcatel Oxide DRIE
Etch: Alcatel Silicon DRIE
Etch: PT720
Etch: Dual Etch Versalock
Etch: Vision 320 DRIE
Evaporator: Lab 18
FESEM: Leo 1530 & Merlin
Litho: Steppers
Litho: Laser Writer DWL66
Sputters: CMS-18

Equipment Level 2
ALD 150 LX & ALD Cluster
Anneal: MRL Black Max
Ellip: Woolam
Etch: M4L
Etch: Xactix XeF2 Etcher
Litho: EVG Bonder
Litho: EVG 620 Contact Printer
Litho: MA/BA6
Litho: Nanoscribe 3D
Litho: YES 1224P CVD System
LPCVD Oxidation Tube
Nanometrics 8000X SE
Particle Analyzer: Tencor 4500
Profilometer: KLA-Tencor P16+
RTA AG610
RTP 600S & 810

Equipment Level 4
ALD 200 & 150 LE (run)
Cluster Tool: PECVD
Etch: Ulvac
Parylene & Semicore (run)
Litho: Ebeam
4Wave Ion Beam Depo