



MEMS & Microelectronics Lab

CENTRE FOR NEMS AND NANOPHOTONICS

Electrical Engineering Department, IIT Madras, Chennai – 600 036

Equipment Usage Charges w.e.f 01 /11 /2024

Equipment Name	Process	Conditions	Industrial Users
Dicing (ADT)	Automatic Dicing	Per Hour	15000
DRIE	Bosch	For Single Run	30000
DRIE	Cryogenic	For Single Run	60000
Hind Hi Vac E-Beam Evaporation system	Chrome, Gold	For Single Run	15000
Moorfield minilab S80 E-beam Evaporation system	Chrome, Gold	For Single Run	15000
E-Beam Litho(Raith)	For writing sub-micron feature size	Per Hour	12000
Heraeus (Furnaces)	Diffusion	For Single Run	15000
Tempress/Thermco (Furnaces)	Dry and wet Oxidation	For Single Run	15000
SVCS (Furnaces)	Oxidation and Diffusion	For Single Run	18000
ICP PECVD	Silicon Dioxide, Silicon Nitride Amorphous Silicon	For Single Run	30000
Atomic Layer Deposition	Upto 15nm	For Single Run	30000
ICP-RIE (CL2 & BCL3)	Dry etch	For Single Run	24000
ICP-RIE (CL2 & HBr)	Dry etch	For Single Run	24000
Constant Temp Bath	Wet etch	Per Hour	6000
LPCVD	Silicon Nitride, Polysilicon Silicon Dioxide	For Single Run	32000
Mask Aligner (MA6/BA6)	Photolithography	For Single exposure	16000
Mask Aligner(OAI)	Photolithography	For Single exposure	9000
Mask Aligner(Deep UV)	Photolithography	For Single exposure	15000
Mask Writer	Photo masking	For 1 square inch 1um resolution	60000
Mask Writer	Photo masking	For 1 square inch 2 um resolution	30000
Polishing (Ultratech)	Polishing	For Single Run	9000
RF Sputtering	Reactive Sputtering	For Single Run	18000
RTP (Anneal Sys)	Oxidation and Annealing	Per Hour	15000
Substrate Bonder	Wafer Bonding	For Single Run	30000

Thermal Evaporation	Aluminium	For Single Run	9000
Wet Bench	Silicon Dioxide Etch, Aluminium Etch, Wafer Cleaning	Per Hour	6000
Wire and Die Bonder	Wire bonding	Per Hour	12000
Plasma Asher		Per Hour	12000
3D Non Contact Profilometer	Surface Imaging	Max. 10 meas. per hour. 50% discount for additional measurements.	6000
Confocal Microscope	Surface Imaging	Max. 10 meas. per hour. 50% discount for additional measurements.	6000
Spectroscopic Ellipsometer	Thickness/ Refractive index measurement	Max. 5 meas. per hour. 25% discount for additional measurements.	6000
Table top SEM	Surface Imaging	Max. 5 meas. per hour. 25% discount for additional measurements.	6000
Micro system Analyser	Vibration and surface Topography	Per Hour	6000
Cantisense		Per Hour	9000
Four Probe kit	Resistivity Measurement	Per Hour	6000
Probe Station(Manual)	With B1500 Parametric Analyser	Max. 5 meas. per hour. 25% discount for additional measurements.	6000
Probe Station(Thermal) (-60 to +200 deg C)	With B1500 Parametric Analyser	Max. 5 meas. per hour. 25% discount for additional measurements.	12000
Probe Station(Vacuum) (-60 to +200 deg C)	With B1500 Parametric Analyser	Max. 5 meas. per hour. 25% discount for additional measurements.	12000
High Voltage Probe station	With B1505 Parametric Analyser	Max. 5 meas. per hour. 25% discount for additional measurements.	12000
Solar Simulator	Characterization	Per hour	6000
IPCE	Characterization	Per hour	6000
Thermal Evaporation	Aluminium,Gold,Silver,LiF and MoO3	For Single Run	6000

Glove Box	Fabrication process	Per hour	7500
Glove Box	UV Ozone cleaning	Per Hour	3000
Glove Box	Spinner	Per Hour	3000
Glove Box	Prebake and Post bake	Per Hour	3000
DI Water (Resistivity > 16 MΩ)		Per litre	200

- **75% Discount for Internal IITM Users.**
- **50% Discount for External Academics/ Research park firms –Startups.**
- **25% Discount for National R&D Laboratory users.**
- **For External Academics/ Research park firms /Startups/Industries -GST 18% will be added and cheque must be paid towards “The Registrar, IIT Madras”.**
- *** For all Processing Equipments and Organic Lab Equipments, cost of consumables will be charged additionally at actuals.**