

# MNC Industrial Rates--Access and Equipment Use

valid 8/1/17 to 7/31/18 RATES SUBJECT TO CHANGE

ACCESS/USE	LOCATIONS	UNITS	RATE	MONTHLY MAX
ACCESS FEE	PAN cleanroom, Keller cleanroom, Keller Areas 1-3	monthly fee	\$99.50	\$99.50
LAB USAGE FEE	PAN cleanroom, Keller cleanroom, Keller Areas 1-3	per lab session	\$78.00	\$624.00
PAN NANO-BIO LAB	PAN 181	per hour	\$78	\$624
PAN NANO-MATERIALS LAB	PAN 185	per hour	\$78	\$624

CATEGORIES	INCLUDED EQUIPMENT	UNITS	RATE
2D MATERIALS GROWTH	Graphene furnace, TMD furnace	minute	\$0.95
ALD-ATOMIC LAYER DEP	ALD Savannah 200, Fiji PEALD	minute	\$1.50
ALIGNERS	MA6, MABA6, MA6-P	minute	\$2.75
ANALYTICAL EQUIPMENT	AFM, P16, P7, HS SCOPE	minute	\$2.35
CRITICAL POINT DRYER	Tousimis system	minute	\$5.20
DRY ETCHING	Ion Mill, Oxford RIE, STS etcher, AV, Deep Trench etcher, XeF2 etcher	minute	\$2.88
E-BEAM EVAPORATION	CHA, Temescal and Varian	minute	\$2.40
E-BEAM LITHOGRAPHY	Vistec EBPG 5000+	minute	\$3.95
FIB	FEI Quanta 200 3D	minute	\$2.85
LASERWRITER	Heidelberg DWL 200	minute	\$1.85
LPCVD	Thermco LPCVD system	minute	\$5.95
MASKMAKING	Min feature size > 1.5um	per mask	\$610.75
MASKMAKING	1.0um < Min feature size < 1.5um	per mask	\$1300.00
MINIBRUTE FURNACE	Minibrute furnace	minute	\$1.47
NANOIMPRINTER	Nanonex	minute	\$4.25
ORIEL	Oriel	minute	\$1.40
OXIDATION/DIFFUSION	Tylan Oxidation system	minute	\$3.24
PECVD	PECVD, HD PCVD	minute	\$2.15
RAPID THERMAL ANNEALING	Modular Process RTA	minute	\$4.10
SEM	Jeol SEM, Amray SEM	minute	\$2.15
SPINNERS	CEE equipment, Headway spinner	minute	\$1.10
SPUTTERING	AJA I, AJA II and PE2400 DC system	minute	\$3.00
STEPPER	Canon Stepper	minute	\$3.35
THERMAL EVAPORATION	Thermal Evaporator	minute	\$2.79
WAFER BONDING	Karl Suss SB6	minute	\$3.45
WAFER SAW	DISCO	minute	\$1.80

MISC CHARGE RATES	UNITS	RATE
EQUIPMENT RESERVATIONS	per reservation	\$45.00
SHORTCOURSE TRAINING FEE	per session	\$92.50
E-BEAM LITHO TRAINING	per session	\$625
HEIDELBERG LASERWRITER	Per session	\$200
STAFF LABOR	per hour	\$132.60
CLEAN SPACE FACILITY CHARGE	ft/month	\$65
NON-CLEAN SPACE FACILITY CHARGE	squ ft/month	\$1.40