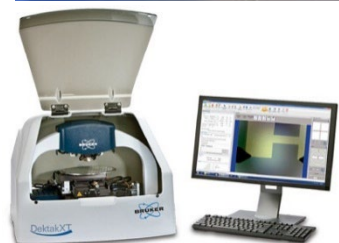
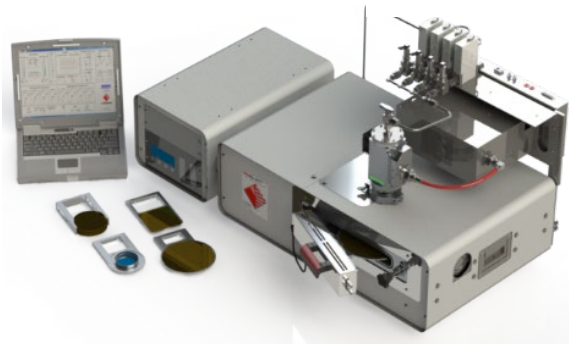


Nanofabrication Research Service Center (NRSC)

NRSC user rates-effective 3/1/22

Fee description	comments	external	internal
Daily access fee per user	unlimited entry/re-entry 00:00-24:00 for the date accessed	\$ 30	\$ 10
Tier 1 hourly equipment fee	per piece of equipment, same rate for training	\$ 45	\$ 15
Tier 2 hourly equipment fee	per piece of equipment, same rate for training	\$ 60	\$ 20
Tier 3 hourly equipment fee	per piece of equipment, same rate for training	\$ 75	\$ 25
Tier 4 hourly equipment fee	per piece of equipment, same rate for training	\$ 90	\$ 30
Tier 5 hourly equipment fee	per piece of equipment, same rate for training	\$ 105	\$ 35
Monthly project cap*	external soft cap (internal rate after cap)	\$ 3,327.50	\$ 665.50
Monthly project minimum charge	only billed when facility is accessed	\$ 500	\$ 100

*excludes purchased consumables (e.g. specialty chemicals, deposition materials, substrates, tweezers, notebooks, etc.)



NRSC Equipment Tiers and consumables costs

Consumable	unit	internal \$/unit	external \$/unit
100mm dia Si test grade wafer	ea	\$ 9.00	\$ 13.46
Gold PVD	500 Angstroms	\$ 35.00	\$ 52.33
Platinum PVD	500 Angstroms	\$ 35.00	\$ 52.33
cleanroom notebook	ea	\$ 10.00	\$ 14.95
wafer tweezers	ea	\$ 36.00	\$ 53.82
diamond scibe	ea	\$ 17.00	\$ 25.42
kapton tape	roll	\$ 9.00	\$ 13.46

Equip	Module	Tier
NRSC Teaching Bay Four Point Probe	Metrology	0
NRSC Teaching Bay SS Hood	Etch	0
NRSC Vacuum Oven	Thermal	0
NRSC 3-Zone Tube Furnace	Thermal	1
NRSC Surface Profilometer	Metrology	1
NRSC Axiotron Microscope	Metrology	1
NRSC Olympus Microscope	Metrology	1
NRSC Oxidation Furnace-Dry	Thermal	1
NRSC Oxidation Furnace-Wet	Thermal	1
NRSC HMDS Oven	Lithography	1
NRSC Chimera wet hood	Etch	1
NRSC Teaching Bay Lithography Stations	Lithography	2
NRSC Teaching Bay PVD	Deposition	2
NRSC Teaching Bay NRP-4000 Etch/PVD tool	Etch/Deposition	2
NRSC Hydra wet hood	Etch	2
NRSC Probestation (Zeus)	Metrology	2
NRSC PE50 O2 Plasma Asher	Etch	2
NRSC Teaching Bay F20 Filmetrics	Lithography	2
NRSC Teaching Bay N-Type (P) Doping Furnace	Thermal	2
NRSC Teaching Bay P-Type (B) Doping Furnace	Thermal	2
NRSC Teaching Bay Etch Station	Etch	2
NRSC F50 FILMETRICS	Lithography	2
NRSC PECVD	Deposition	3
NRSC Wafer Bonder	Lithography	3
NRSC SuSS MJB4 Contact Aligner	Lithography	3
NRSC RTP	Thermal	3
NRSC Xanthos Hood	Lithography	3
NRSC AJA Magnetron Sputter	Deposition	4
NRSC PEALD	Deposition	4
NRSC Oxford ICP/RIE	Etch	5
NRSC Ebeam Evaporator	Deposition	5