Nanotechnology Measurement Lab
Equipment and their Function

NanoSurf NaioAFM

An atomic force microscope that can measure the topography and several other properties of a sample with nanometer resolution.

NanoSurf Naio STM

Scanning tunneling microscope allows students to study objects at the atomic level.

SEMICONSOFT MProbe thin film measurement

Uses spectral reflectance to measure the thickness of thin films in the nano to micro scale.

Micromanipulator Microscope

Used for getting a magnified view of objects.

Keithley Source meter 4200

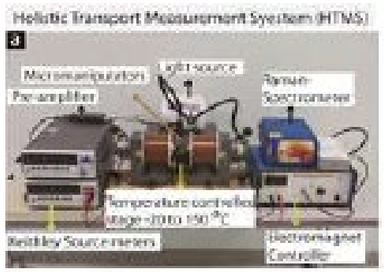
This equipment conducts current-voltage studies to fA sensitivity and capacitance measurement.

Keithley 6430 Source Meter

I-V measurement upto femto amp level precision.

Low temperature current-voltage measurement system

Measure transport properties up to 4K.



Holistic Transport measurement System

This integrated system is designed to conduct current-voltage studies as a function of temperature, magnetic field, and variable wavelength light. We plan to do Raman spectroscopy along with current-voltage studies in some cases.

Phenom-XLSEM
Microscopy with am Components.

Bruker 400 MHz NMR

Molecule characterization.

FTIR

Molecule synthesis.