Laboratory for Preparation and Characterization of Nanostructures

Spectroscopy

XPS (X-Ray Photoelectron Spectroscopy)
UPS (Ultraviolet Photoelectron Spectroscopy)
AES (Auger Electron Spectroscopy)
ISS (Ion Scattering Spectroscopy)
Depth profiling (ARXPS, sputtering)

Microscopy

SEM (Scanning Electron Microscopy)
SAM (Scanning Auger Microscopy)
STM (Scanning Tunneling Microscopy)

Preparation

PVD (Physical Vapor Deposition)
CVD (Chemical Vapor Deposition)
Low Energy Electron Irradiation
Sample heating/cooling
Sputtering

**Cleanroom**

![Cleanroom Image](image)

**Whiteroom (Class 1000)**
- Wetbench
- Optical Microscopes
- Spin Coater
- Photolithography

**Greyroom**
- Optical Microscopes
- Critical Point Dryer
- Ozone Cleaner
- Contact Angle Measurement System

**Helium Ion Microscope**

![Helium Ion Microscope Image](image)

Helium Ion Microscope Orion from Zeiss
ELPHY MultiBeam Pattern Generator from Raith ([link to product](#))

**LEEPS Microscopes**

Low Energy Electron Point Source (LEEPS) microscope
Nanomanipulator
Single nanowire experiments

**Scanning Probe Microscope**

AFM (Atomic Force Microscopy)
STM (Scanning Tunneling Microscopy)
Electrochemistry

**Infrared Spectroscopy**
IRRAS (Infrared Reflection Absorption Spectroscopy)
ATR-IR (Attenuated Total Reflection Spectroscopy)

**Projection Lithography**

Low Energy Electron Irradiation

**Ionbeam**

Ion-Source (15kV)
Duo-Plasmatron Ion-Source (30kV)
Space-/Timeresolved Fragment-Spectrometer