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]

**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]

Helium Ion Microscope Orion from Zeiss
LEEP Microscopes

Low Energy Electron Point Source (LEEP) 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