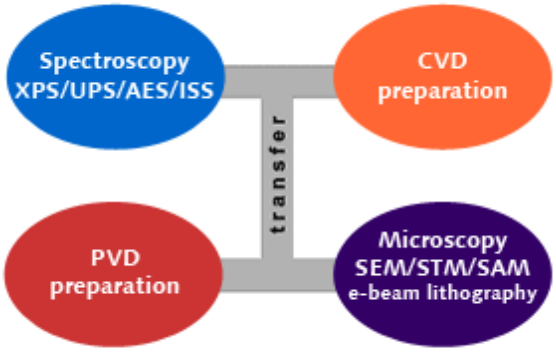
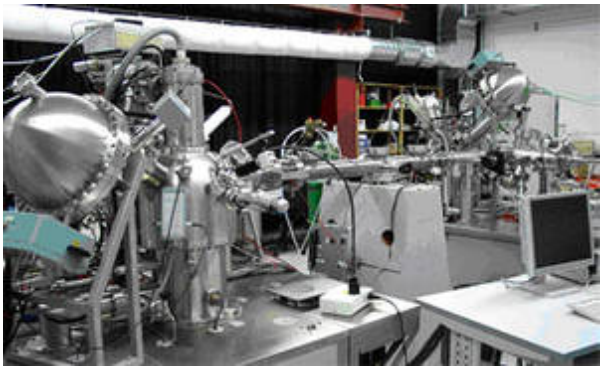
Laboratory for Preparation and Characterization of Nanostructures



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

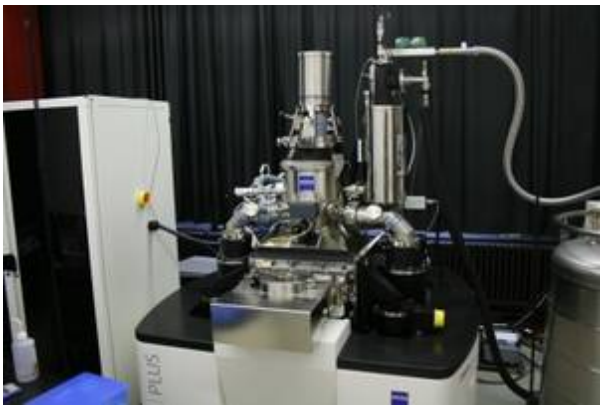
Whiteroom (Class 1000)

Wetbench
Optical Microscopes
Spin Coater
Photolithography

Greyroom

Optical Microscopes
Critical Point Dryer
Ozone Cleaner
Contact Angle Measurement System

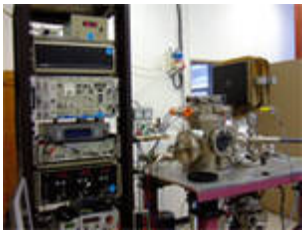
Helium Ion Microscope



Helium Ion Microscope Orion from Zeiss

ELPHY MultiBeam Pattern Generator from Raith (link to product)

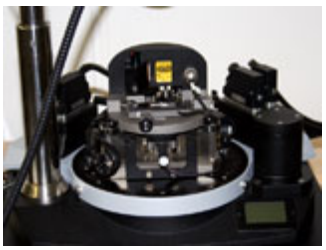
LEEPS Microscopes



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

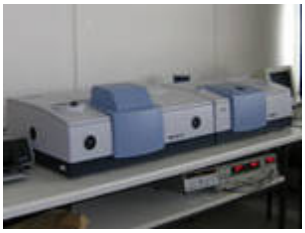
Low Energy Electron Point Source (LEEPS) microscope
High resolution detector
Electron Holography

Scanning Probe Microscope



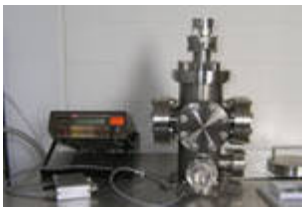
AFM (Atomic Force Microscopy)
STM (Scanning Tunneling Microscopy)
Electrochemistry

Infrared Spectroscopy



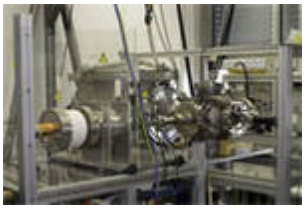
IRRAS (Infrared Reflection Absorption Spectroscopy)
ATR-IR (Attenuated Total Reflection Spectroscopy)

Projection Lithography



Low Energy Electron Irradiation

Ionbeam



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