MICRO & NANO CHARACTERIZATION

The AIT Austrian Institute of Technology offers customized services for simulating, fabricating and characterizing micro- and nano-technological structures and devices. The laboratories are well equipped with state-of-the-art facilities and our unique expertise relies on combining semiconductor technologies and thin film processes with innovative concepts from micro-, nano- and bio-sciences. Prospective clients are encouraged to contact us. We will be happy to help you select the appropriate methods and processes to tackle your technical challenges.

TOOLS FOR CHARACTERIZATION

- Scanning probe microscope and spectroscopy (SPM)
  Atomic Force Microscopy (AFM)
  Chemical Force Microscopy (CFM)
  Magnetic Force Microscopy (MFM)
  Imaging possible also in fluids
- Scanning electron microscope (SEM)
  Scanning Transmission Electron (STEM) detector
  Back Scattered Electron (BSE) detector
- Surface profiler
- 4-point probe station
  Electrical measurement up to 20 GHz
  Magnetoresistance characterization
- Electrochemical potentiostat
- Electrochemical impedance spectroscopy
- Optical benches for integrated waveguide devices
- UV-VIS-NIR-MIR spectrometer, monochromator

APPLICATION EXAMPLES

- Structural characterization
- Topographic, chemical and magnetic imaging
- Characterization of sensors, for example
  Magnetic field sensors (GMR, TMR)
  Magnetic flux concentrators
  Infrared sensors
  Capacitive sensors
  Conductive sensors
- Optical characterization

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