



A100 PLUS AFM

Atomic Force Microscope

Designed to perform advanced electrical measurements

A100 PLUS AFM is a new versatile high resolution atomic force microscope suitable for a wide range of applications including materials science, semiconductor technology, optoelectronic, chemistry, bioscience and medicine.

The instrument design and the flexure scanning stage ensures **high planarity, stability**, and low noise throughout scanning process providing **sub-nanometric resolution** even on large scanning areas.

The scanning system with XY & Z completely decoupled and with absolute positioning sensors guarantees **precise and accurate repeatability** and **nanopositioning**.

The AFM head offers excellent view and open access to the sample and probe for quick and easy replacement operations: the tip holder can be easily removed from the AFM head to quickly mount any type of commercial cantilever.

A100 PLUS AFM is equipped with **new electronic modules**, specially designed to perform a wide range of **advanced electrical measurements** (Electrostatic Force Microscopy, Kelvin Probe Mode, Piezo Force Microscopy, Conductive ...), which allow to map the electrical properties of the sample such as electrical potential distribution, charge propagation, contact potential difference, sample piezoelectric response, etc.

**Over 20 years
of experience in
Nanotechnology**

KEY FEATURES:

- High Versatility
- Flexure Scanner with absolute Positioning Sensors
- Easy mounting of tips and samples
- Automatic tip-sample Approach
- Integrated Acoustic and Vibration damping system

A100 PLUS AFM

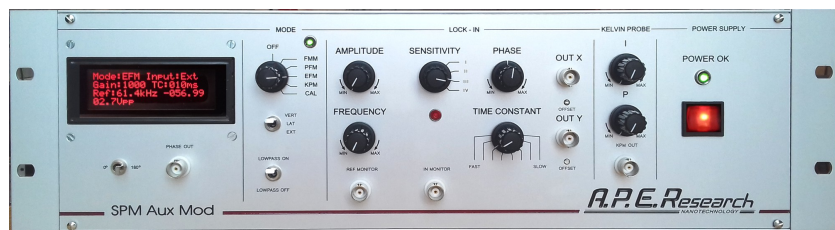
Scanner technical data:

Maximum X-Y scan size: 100 x 100 μm (High Voltage mode);

Lateral Resolution : Closed loop: 2 nm, Open loop: 0.2 nm, Closed loop linearity: 0.1%.

Z scan size: 10 μm (high voltage mode)

Vertical Resolution: 0.16 nm (high voltage mode), 0.02 nm (low voltage mode).

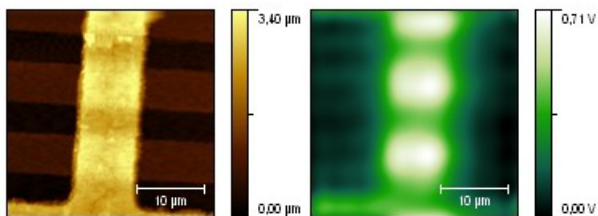


A100 PLUS AFM Working modes:

Contact AFM mode, Non-Contact AFM, Semi-contact mode, Phase Imaging, Lateral Force Microscopy, Force Modulation, Electrostatic Force, Kelvin Probe, Piezo Force mode, Conductive-AFM;

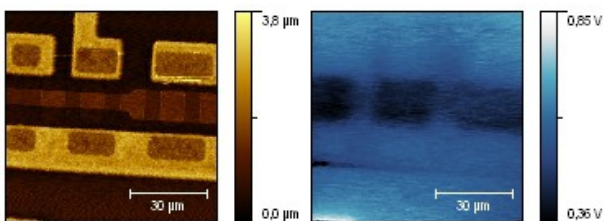
more: Spectroscopy (vs tip-sample distance, vs applied voltage or vs time) and Force Curves Analysis.

Other additional accessory tools are available (on request) for further specific measurements modes (SNOM, STM, Nanolithography, etc...)



AFM Topography

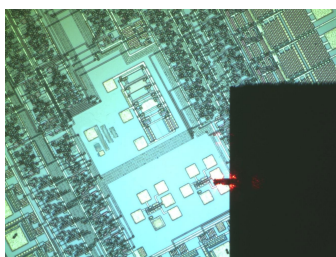
Electrostatic map



AFM Topography

Kelvin Probe

High definition video system gives a direct, real – time probe and sample top view for the precise probe positioning on the sample.



Multi-window Software for instrument control (tip approach, scanning, sample movement) and data acquisition runs under Windows 10

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