

# NaioAFM

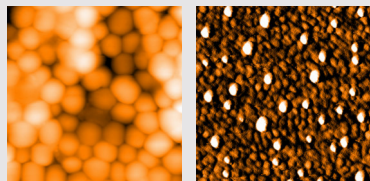
The leading compact AFM

Compact and robust

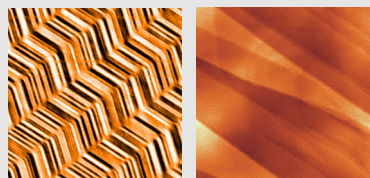
Easy to use

Real value for money





**Particle size.** Left: Staphylococcus aureus bacterial sample. Scan size 5.0 µm. Right: Gold colloids. Scan size 1.5 µm.



**Data storage.** Digital backup tape with magnetically stored data, as revealed by MFM. Scan size 50 µm.

**Atomic steps.** HOPG. Single layer height is 0.34 nm. Image Z-range is 3.5 nm. Scan size 3.2 µm.



**Cantilever exchange.** Quick and simple cantilever exchange with the NaioAFM's flip-over scan head design and cantilever exchange tools.



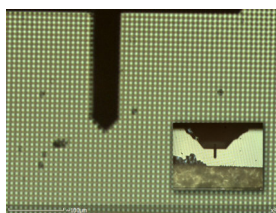
**Setup.** A NaioAFM, a USB cable, and a PC are all that you need!

## All-in-one atomic force microscope for small samples and nanoeducation

The NaioAFM is the ideal atomic force microscope for nanoeducation and small sample measurements. This all-in-one AFM system provides solid performance and easy handling, with a price tag and footprint that fit anyone and any place.

### Key Features

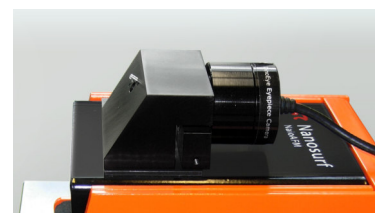
- Integrated controller, XY-table, airflow shielding, and vibration isolation
- High resolution top view camera and side view sample observation built in
- Feature-complete: All standard operating modes available
- Simple cantilever exchange: no laser or detector adjustment required
- No system setup needed: just plug into your PC and start the software



Top view camera with zoom



Side view observation



Optional side view camera

### NaioAFM specifications

Max. scan range / scan height (resolution) <sup>(1)</sup>	70 µm (1.0 nm) / 14 µm (0.2 nm)
Static / Dynamic RMS Z-noise	typ. 0.4 nm (max. 0.8 nm) / typ. 0.3 nm (max. 0.8 nm)
Max. sample size / height	12 mm / 3.5 mm
Max. sample stage positioning range	12 mm travel in X and Y
Top view camera	2 × 1.5 mm FOV, 2 µm optical resolution, 5.0 MPixel color CMOS, 4× digital zoom, in-axis LED illumination
Side view observation	5 × 5 mm FOV, variable LED illumination (optional camera : 2 × 2 mm FOV, 1.3 MPixel monochrome CMOS)
Approach	4 mm linear motor, continuous or step-by-step approach
Imaging modes	Static Force, Dynamic Force, Phase Contrast, MFM, EFM
Advanced imaging modes <sup>(2)</sup>	Spreading Resistance, Force Modulation
Spectroscopy modes	Force–Distance, Amplitude–Distance, Voltage–Distance
Advanced spectroscopy modes <sup>(2)</sup>	Current–Voltage, Stop by end value, Fwd & Bwd pause
Lithography modes	Static Force, Dynamic Force, Oxidation
Advanced lithography modes <sup>(2)</sup>	Draw and load CAD vector graphics, Bitmap images
Remote control/add-ons <sup>(2)</sup>	Windows scripting interface: compatible with LabView, C#, Visual Basic, MatLab, and other software...
Operating system and PC requirements	Windows 7 or higher (32/64-bit), 1280x1024 px screen resolution, Core 2 CPU, 4 GB RAM, 1 free USB 2.0 port
Size (LWH) / Weight / Power	204x204x160 mm / 6.5 kg / 100–240 VAC (30 W)
Power	100–240 VAC, 50/60 Hz, 50 W

<sup>(1)</sup> Manufacturing tolerances are ±10%

<sup>(2)</sup> Naio Advanced Modes Option required

### Compatible options and accessories

NaioAFM Side View Camera, Naio Advanced Modes Option, Isostage Adapters for Naio, AFM Extended Sample Kit

#### Nanosurf AG

Gräubernstrasse 12  
4410 Liestal  
Switzerland  
+41 61 927 47 47 (phone)  
+41 61 927 47 00 (fax)

#### Nanosurf GmbH

Rheinstrasse 5  
63225 Langen  
Germany  
+49 6103 202 7163 (phone)  
+49 6103 202 7182 (fax)

#### Nanosurf Inc.

300 Trade Center, Suite 5450  
Woburn, MA 01801  
United States of America  
781 549 7361 (phone)  
781 549 7366 (fax)

#### Nanosurf 中国

**Nanosurf China, Shanghai**  
上海市天宝路578号 (200086)  
飘鹰世纪大厦703室, 中国  
+86 18621896399 (电话)  
+86 21 5512 7698 (传真)