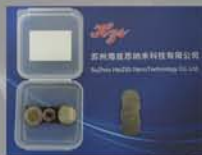


NanoFirst<sup>®</sup>

# 一体式原子力显微镜 All-in-one AFM Nanofirst 3600型

Nanofirst 3600是一款高性价比的一体式原子力显微镜(AFM)，具有性能稳定，操作简便和实用性强等优点，可实现高分辨纳米、亚纳米测试。适合于高校纳米科技教学、科学研究、纳米材料及粉体分析、电化学测量、生物制药和工业现场测试。作为专业AFM制造商，海兹思具有十多年的AFM技术经验和积累，能够提供及时的专业技术支持和售后服务。

Nanofirst 3600 is a all-in-one AFM with excellent performance, reliable stability and easy to use features. It is a good instrument for nano or sub-nano measurement as well as nanotech teaching, science research, nano material & nano-powder analysis, electrochemistry measure, bio-pharmacy and industrial on-site testing. As a professional AFM manufacturer, HZS has more than 10 years R&D experience, which make sure of timely and professional technical support and after-sale service.



样品/基底  
Sample/holder

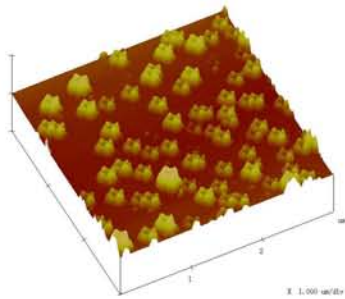


AFM探针  
AFM cantilever



主机套装  
Package

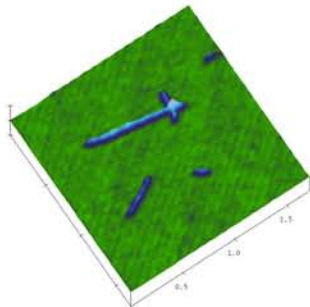
2011年全新上市!


 样品名称: 氧化亚铜 (Cu<sub>2</sub>O) 颗粒

测试要求: 表面形貌, 颗粒尺寸

 Sample: Cu<sub>2</sub>O particles

Testing requirement: topography and size

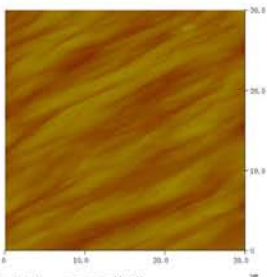


样品名称: 碳纳米管 (CNT)

测试要求: 表面形貌

Sample: CNT

Testing requirement: topography

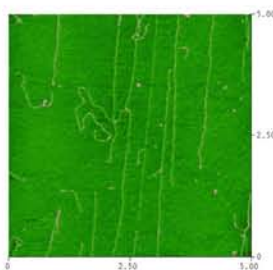


样品名称: PET 薄膜

测试要求: 表面粗糙度

Sample: PET thin film

Testing requirement: surface roughness



样品名称: DNA

测试要求: 表面形貌

Sample: DNA

Testing requirement: topography

### 特点及用途:

- > 为科研和工业应用设计, 用于各类纳米材料样品测量表征;
- > 一体式结构设计, 配有专业防震系统;
- > 集成接触模式和动态力模式原子力显微镜、摩擦力显微镜功能;
- > 多通道图像同步采集显示, 实时观测形貌图、摩擦力图、振幅图等;
- > 定点实时测试F-Z曲线、f-RMS曲线、RMS-Z曲线等多种曲线功能;
- > 设置“扫描频率安全上限”功能, 可限制最快扫描频率, 保护探针
- > 图像获取文件连续存盘和自定义文件名, 当前全部工作环境参数同步保存功能;
- > 配备二维微米移动平台, 快速搜索样品区域;
- > 高精度探针-样品定位系统, 直接定位到倍CCD (选配) 任意可视的微米级区域进行扫描;
- > 可增配模式: 磁力、相位和静电力。

### Main Features and Applications:

- > Specially Designed for the technology and the industrial application, test for measuring the feature of all kinds of nanomaterial samples;
- > The one-piece design with the special proofvibrated system;
- > Composed with contact mode, dynamic force mode, LFM;
- > Real-time multicenter showing about image synchronous collection, and observing the topography, lateral force image and amplitude images;
- > Fixed point real-time testing F-Z curve, f-RMS curve, RMS-Z curve etc;
- > Functioned with “scanning frequency security limit” to limit the fastest scanning frequency to protect tips;
- > Obtained image continuous saving, filename user-defined and all current work parameters saved synchronous;
- > Equipped with the two dimensional mobile platform to search sample area quickly;
- > The positioning system of the probe-sample with high accuracy directly locates to the area of  $\mu\text{m}$  to scan;
- > Optional mode: magnetic force, phase imaging and electrostatic force.

### 主要技术指标: Main technical parameter

扫描范围 Scan Size	标准: 10 $\mu\text{m}$ × 10 $\mu\text{m}$ ( $\pm 10\%$ ) 选配: 30 $\mu\text{m}$ × 30 $\mu\text{m}$ ( $\pm 10\%$ ), 50 $\mu\text{m}$ × 50 $\mu\text{m}$ ( $\pm 10\%$ )
样品要求 Sample Demand	尺寸 $\leq \Phi 30 \text{ mm}$ , 厚度: $\leq 15 \text{ mm}$ size $\leq \Phi 30 \text{ mm}$ , thickness $\leq 15 \text{ mm}$
分辨率 Resolution	接触模式: 横向 0.2 nm, 纵向 0.03 nm Contact mode: lateral: 0.2 nm, vertical: 0.03 nm 动态力模式: 横向 0.3 nm, 纵向 0.05 nm Dynamic force mode: lateral: 0.3 nm, vertical: 0.05 nm
微米移动平台范围 Micrometer mobile table range	5mm × 5mm
样品定位精度 Sample location Precision	0.1 $\mu\text{m}$
扫描角度 Scan Angle	0 - 360°
扫描偏移 Scan Offset	任意 random
扫描器校正 Scanner Correction	实时非线性校正 real-time non-linear correction
横向测量精度 Lateral Measurement Precision	< 2%
图像采样点 Image Pixels	512 × 512
控制器反馈方: Feedback Mode of Controller	DSP 数字反馈 DSP digital feedback
反馈模式 Feedback Type	线性和对数反馈 linear and logarithmic feedback
步进马达控制 Stepper Motor Control	手动和全自动进退 (自动保护针尖) Manual or full automaticity (protecting tip automatically)
防震方式 Shakeproof Mode	大理石底座和弹簧悬挂式双重防震装置 The marble base and double proofvibrated device of the type of spring suspended
电脑接口 Computer interface	USB2.0

\* 仪器规格和外观可能会有变化, 恕不另行通知。Specifications and outlook are subject to change without notice.