A62.4500 Opto Edu Microscope Tapping Mode Rms-Z Curve Teaching Level Atomic Force

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: OPTO-EDU
- Certification: CE, Rohs
- Model Number: A62.4500
- Minimum Order Quantity: 1pc
- Price: FOB $1~1000, Depend on Order Quantity
- Packaging Details: Carton Packing, For Export Transportation
- Delivery Time: 5~20 Days
- Payment Terms: L/C, T/T, Western Union
- Supply Ability: 5000 pcs/ Month

Product Specification

- Work Mode: "Tapping Mode Optional Contact Mode Friction Mode Phase Mode Magnetic Mode Electrostatic Mode"
- Current Spectrum Curve: "RMS-Z Curve Optional F-Z Force Curve"
- XY Scan Range: 20×20um
- XY Scan Resolution: 0.2nm
- Z Scan Range: 2.5um
- Y Scan Resolution: 0.05nm
- Scan Speed: 0.6Hz~30Hz
- Scan Angle: 0~360°
- Sample Size: "Φ≤90mm H≤20mm"
- Shock-Absorbing Design: Spring Suspension
- Optical Syestem: "4x Objective Resolution 2.5um"
- Output: USB2.0/3.0
- Software: Win XP/7/8/10
- Highlight: [illegible]

Product Description

Teaching Level Atomic Force Microscope

Teaching Level Separate controller & main body design, with Tapping Mode, 4x Objective, Miniaturized Detachable Design

The laser detection head and the sample scanning stage are integrated, the structure is very stable, and the anti-interference is strong

The intelligent needle feeding method of motor-controlled pressurized piezoelectric ceramic automatic detection protects the probe and the sample

Automatic optical positioning, no need to focus, real-time observation and positioning of the probe sample scanning area

Spring suspension shockproof method, simple and practical, good shockproof effect

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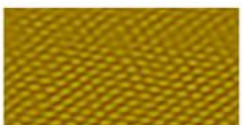
A62.4500

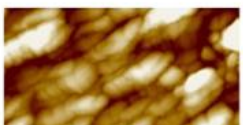
Teaching Level Atomic Force Microscope (AFM)

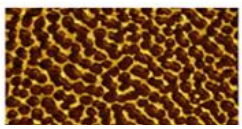
Product Details

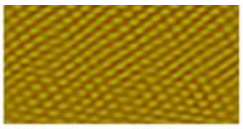
- The laser detection head and the sample scanning stage are integrated, the structure is very stable, and the anti-interference is strong
- Precision probe positioning device, laser spot alignment adjustment is very easy
- The single-axis drive sample automatically approaches the probe vertically, so that the needle tip is perpendicular to the sample scan
- The intelligent needle feeding method of motor-controlled pressurized piezoelectric ceramic automatic detection protects the probe and the sample
- Automatic optical positioning, no need to focus, real-time observation and positioning of the probe sample scanning area
- Spring suspension shockproof method, simple and practical, good shockproof effect
- Metal shielded soundproof box, built-in high-precision temperature and humidity sensor, real-time monitoring of the working environment
- Integrated scanner nonlinear correction user editor, nanometer characterization and measurement accuracy better than 98

Application Case



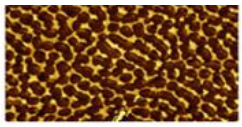




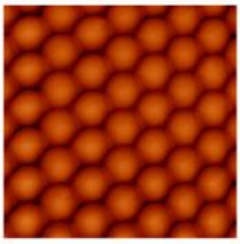


High-order graphite/scanning range 5nm×5nm

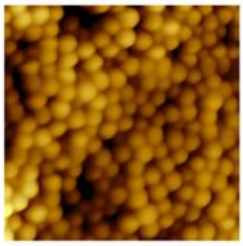
Gold clusters/scanning range 0.5μm×0.5μm



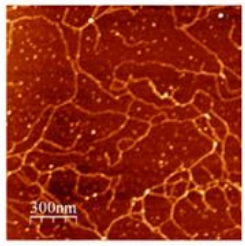
Polysaccharide 10x10um



Polystyrene ball 10x10um



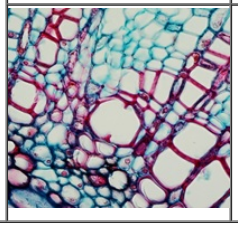
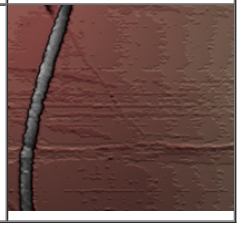
Polystyrene ball 5x5um



Polysaccharide 1.5x1.5um

Specification

Specification	A62.4500	A622.4501	A62.4503	A62.4505
Work Mode	Tapping Mode Optional Contact Mode Friction Mode Phase Mode Magnetic Mode Electrostatic Mode	Contact Mode Tapping Mode Optional Friction Mode Phase Mode Magnetic Mode Electrostatic Mode	Contact Mode Tapping Mode Optional Friction Mode Phase Mode Magnetic Mode Electrostatic Mode	Contact Mode Tapping Mode Optional Friction Mode Phase Mode Magnetic Mode Electrostatic Mode
Current Spectrum Curve	RMS-Z Curve Optional F-Z Force Curve	RMS-Z Curve F-Z Force Curve	RMS-Z Curve F-Z Force Curve	RMS-Z Curve F-Z Force Curve
XY Scan Range	20×20um	20×20um	50×50um	50×50um
XY Scan Resolution	0.2nm	0.2nm	0.2nm	0.2nm
Z Scan Range	2.5um	2.5um	5um	5um
Y Scan Resolution	0.05nm	0.05nm	0.05nm	0.05nm
Scan Speed	0.6Hz~30Hz	0.6Hz~30Hz	0.6Hz~30Hz	0.6Hz~30Hz
Scan Angle	0~360°	0~360°	0~360°	0~360°
Sample Size	Φ≤90mm H≤20mm	Φ≤90mm H≤20mm	Φ≤90mm H≤20mm	Φ≤90mm H≤20mm
XY Stage Moving	15×15mm	15×15mm	25×25um	25×25um
Shock-Absorbing Design	Spring Suspension	Spring Suspension Metal Shielding Box	Spring Suspension Metal Shielding Box	-
Optical Syestem	4x Objective Resolution 2.5um	4x Objective Resolution 2.5um	10x Objective Resolution 1um	Eyepiece 10x Infinity Plan LWD APO 5x10x20x50x 5.0M Digital Camera 10" LCD Monitor, With Measuring LED Kohler Illumination Coaxial Coarse & Fine Focusing
Output	USB2.0/3.0	USB2.0/3.0	USB2.0/3.0	USB2.0/3.0
Software	Win XP/7/8/10	Win XP/7/8/10	Win XP/7/8/10	Win XP/7/8/10

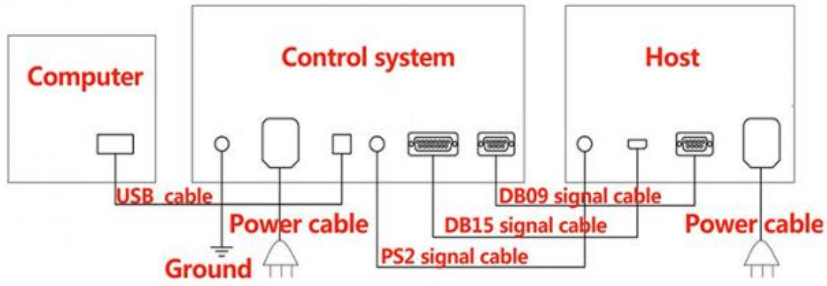
Microscope	Optical Microscope	Electron Microscope	Scanning Probe Microscope
Max Resolution (um)	0.18	0.00011	0.00008
Remark	Oil immersion 1500x 	Imaging diamond carbon atoms	Imaging high-order graphitic carbon atoms 

Probe-Sample Interaction	Measure Signal	Information
Force	Electrostatic Force	Shape
Tunnel Current	Current	Shape, Conductivity
Magnetic Force	Phase	Magnetic Structure

Electrostatic Force	Phase	charge distribution

	Resolution	Working Condition	Working Temperation	Damge to Sample	Inspection Depth
SPM	Atom Level 0.1nm	Normal, Liquid, Vacuum	Room or Low Temperation	None	1~2 Atom Level
TEM	Point 0.3~0.5nm Lattice 0.1~0.2nm	High Vaccum	Room Temperation	Small	Usually <100nm
SEM	6-10nm	High Vaccum	Room Temperation	Small	10mm @10x 1um @10000x
FIM	Atom Level 0.1nm	Super High Vaccum	30~80K	Damge	Atom Thickness

System Diaphragm



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