



## Opto Edu A62.4501 Scanning Microscope Curve Basic Level Atomic Force

### Our Product Introduction

#### Basic Information

- Place of Origin: China
- Brand Name: OPTO-EDU
- Certification: CE, Rohs
- Model Number: A62.4501
- 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: "Contact Mode Tapping Mode Optional Friction Mode Phase Mode Magnetic Mode Electrostatic Mode"
- Current Spectrum Curve: "RMS-Z Curve 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 Metal Shielding Box"
- Optical System: "4x Objective Resolution 2.5um"
- Output: USB2.0/3.0
- Software: Win XP/7/8/10

## Product Description

### Basic Level Atomic Force Microscope

Basic Level, Separate controller & main body design, with Contact Mode, Tapping Mode, 4x Objective

The scanning probe and the sample stage are integrated, and the anti-interference ability is strong

2. Precision laser and probe positioning device, it is simple and convenient to replace the probe and adjust the spot;

4X objective lens optical positioning, no need to focus, real-time observation and positioning of the probe sample scanning area

The spring suspension shockproof method is simple and practical, and has strong anti-interference ability

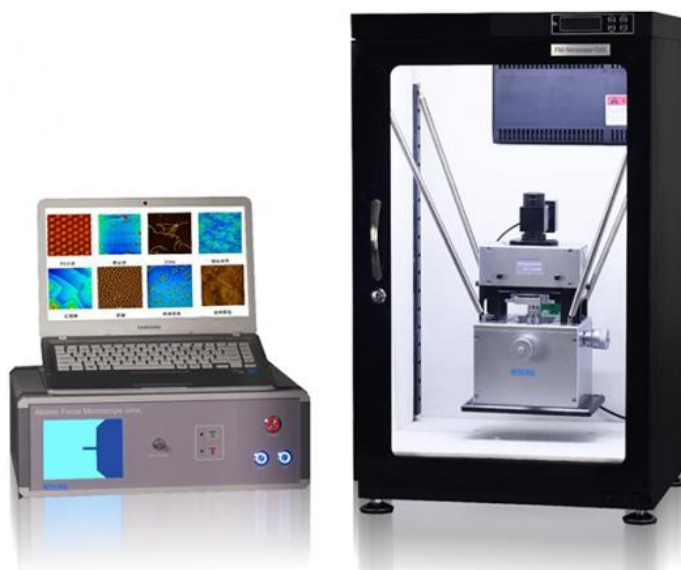


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# A62.4501

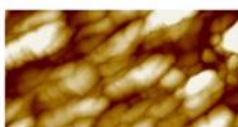
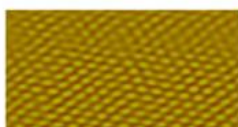
## Basic Level Atomic Force Microscope (AFM)

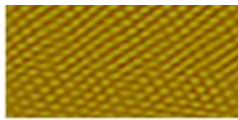


### Product Details

- ◆ 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





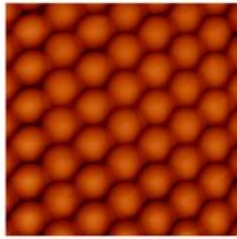
High-order graphite/scanning range 5nm×5nm



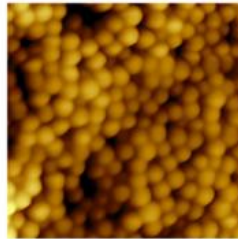
Gold clusters/scanning range 0.5μm×0.5μm



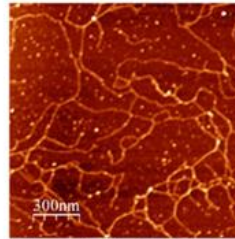
Polysaccharide 10x10um



Polystyrene ball 10x10um

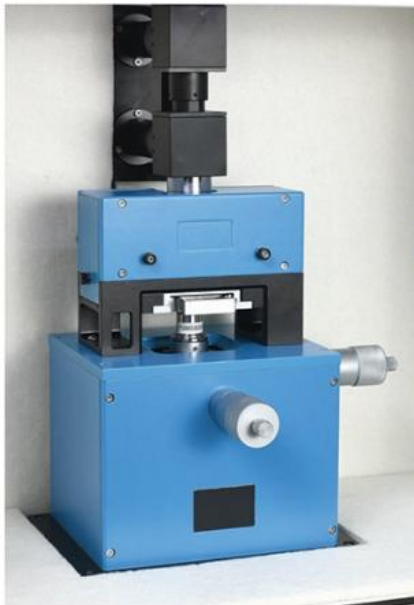
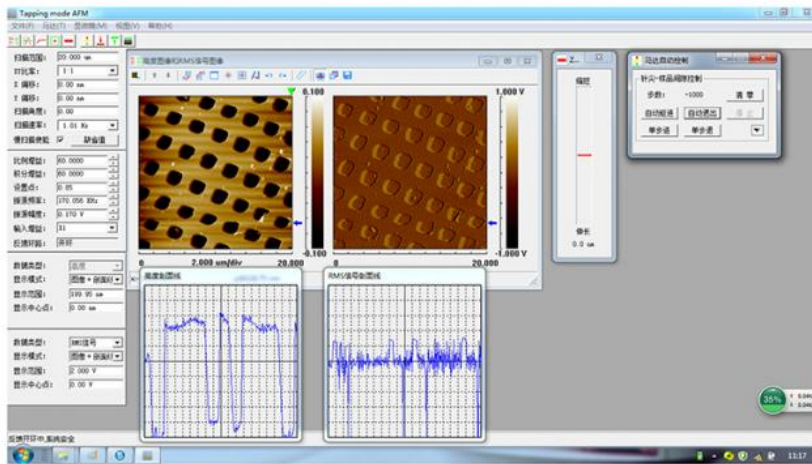


Polystyrene ball 5x5um



Polysaccharide 1.5x1.5um

## Product Details

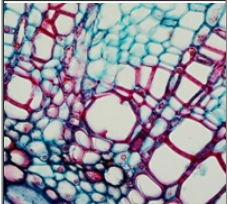




## Specification



Specification	A62.4500	A622.4501	A62.4503	A62.4505

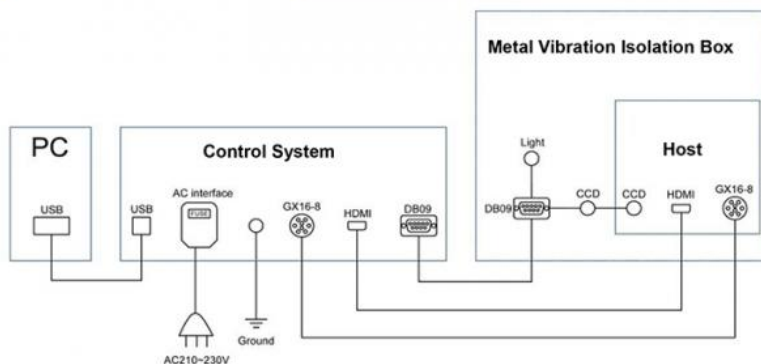
Work Mode	Tapping Mode Optional Contact Mode Friction Mode Phase Mode Magnetic Mode Electrostatic Mode	Contact Mode Tapping Mode Optional Friction Mode Phase Mode Magnetic Mode Electrostatic Mode	Contact Mode Tapping Mode Optional Friction Mode Phase Mode Magnetic Mode Electrostatic Mode	Contact Mode 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 System	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 Temperature	Damge to Sample	Inspection Depth
SPM	Atom Level 0.1nm	Normal, Liquid, Vacuum	Room or Low Temperature	None	1~2 Atom Level
TEM	Point 0.3~0.5nm Lattice 0.1~0.2nm	High Vaccum	Room Temperature	Small	Usually <100nm
SEM	6-10nm	High Vaccum	Room Temperature	Small	10mm @10x 1um @10000x
FIM	Atom Level 0.1nm	Super High Vaccum	30~80K	Damge	Atom Thickness

## System Diaphragm





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