



Controlled Mouse Scanning Electron Microscope Sem 1x~600000x Magnification A63.7080

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: OPTO-EDU
- Certification: CE, Rohs
- Model Number: A63.7080
- Minimum Order Quantity: 1 pc
- Price: FOB \$1~1000, Depend on Order Quantity
- Packaging Details: Carton Packing, For Export Transportation
- Delivery Time: 5~20 Days
- Payment Terms: T/T, West Union, Paypal
- Supply Ability: 5000 pcs/ Month



Product Specification

- Resolution: 1.5nm@15KV(SE); 3nm@20KV(BSE)
- Magnification: 1x~600000x
- Electron Gun: Schottky Emission Electron Gun
- Accelerating Voltage: 0~30KV
- Max Specimen Diameter: 175mm
- Specimen Stage: Five Axes Eucentric Motorized Stage
- Highlight: **controlled mouse scanning electron microscope sem**
, 800000x magnification scanning electron microscope sem



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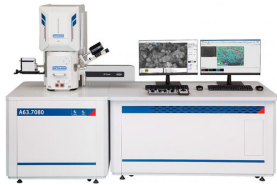
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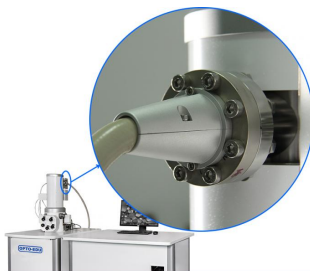
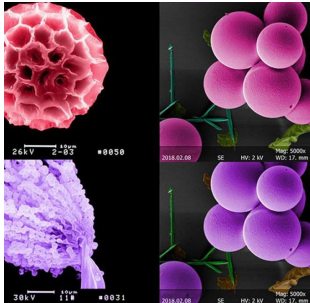
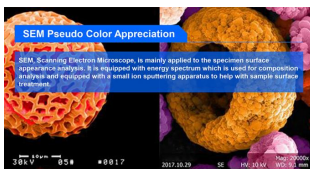
F-1501 Wanda Plaza, No. 18 Shijingshan Road, Beijing 100043, China

A63.7080

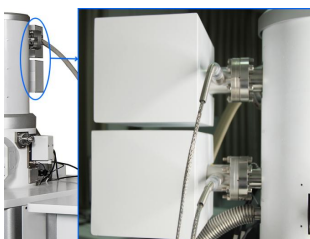
Schottky Field Emission Gun Scanning Electron Microscope, SED+CCD, 1x~600000x



A63.7080 Schottky Field Emission Gun Scanning Electron Microscope



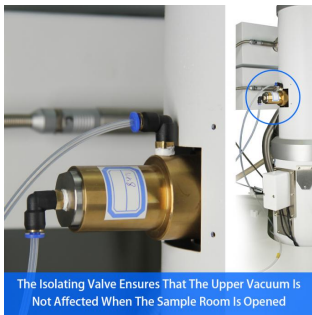
Schottky Field Emission Gun Electron Gun
Electron Gun Room Vacuum > 2E-7 Pa

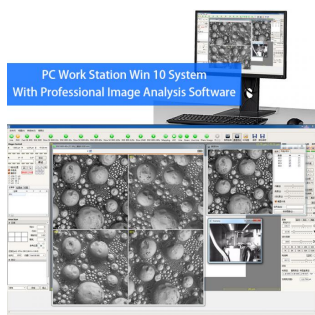


Vacuum System: Ion Pump

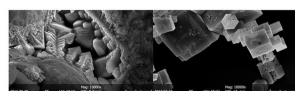
Our Product Introduction

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High voltage integrated commissioning
Brightness adjustment
Contrast adjustment
Magnification adjustment
Selected area scanning mode
Point scanning mode
Line scanning mode
Surface scanning
High voltage power monitoring



A63.7080 Multi-angle



SEM	A63.7069 A63.7069-L A63.7069-LV	A63.7080 A63.7080-L	A63.7061
Resolution	3nm@30KV(SE) 6nm@30KV(BSE)	1.5nm@30KV(SE) 3nm@30KV(BSE)	1.0nm@30KV(SE) 3.0nm@1KV(SE) 2.5nm@30KV(BSE)
Magnification	1x~450000x,Negative True Magnification	1x~600000x, Negative True Magnification	1x~3000000x Negative True Magnification
Electron Gun	Pre-Centered Tungsten Filament Cartridge	Schottky Field Emission Gun	Schottky Field Emission Gun
Voltage	Accelerating Voltage 0.2-30kV, Continuous Adjustable, Adjust Step 100V@0-10Kv, 1KV@10-30KV		
Quick View	One Key Quick View Image Function N/A		N/A
Lens System	Three-levels Electromagnetic Tapered Lens	Multi-levels Electromagnetic Tapered Lens	
Aperture	3 Molybdenum Objective Apertures, Adjustable Outside Of Vacuum System, No Need Disassemble Objective To Change Aperture		
Vacuum System	1 Turbo Molecular Pump 1 Mechanical Pump Sample Room Vacuum>2.6E-3Pa Electron Gun Room Vacuum>2.6E-3Pa Fully Auto Vacuum Control Vacuum Interlock Function	1 Ion Pump Set 1 Turbo Molecular Pump 1 Mechanical Pump Sample Room Vacuum>6E-4Pa Electron Gun Room Vacuum>2E-7 Pa Fully Auto Vacuum Control Vacuum Interlock Function	1 Sputter Ion Pump 1 Getter Ion Compound Pump 1 Turbo Molecular Pump 1 Mechanical Pump Sample Room Vacuum>6E-4Pa Electron Gun Room Vacuum>2E-7 Pa Fully Auto Vacuum Control Vacuum Interlock Function
	Optional Model: A63.7069-LV 1 Turbo Molecular Pump 2 Mechanical Pumps Sample Room Vacuum>2.6E-3Pa Electron Gun Room Vacuum>2.6E-3Pa Fully Auto Vacuum Control Vacuum Interlock Function Low Vacuum Range 10~270Pa For Quick Switch in 90 Seconds For BSE(LV)		
Detector	SE: High Vacuum Secondary Electron Detector (With Detector Protection)	SE: High Vacuum Secondary Electron Detector (With Detector Protection)	SE: High Vacuum Secondary Electron Detector (With Detector Protection)

A63.7080, A63.7061 Software Main Function

Automatic filament on / off	Potential shift regulation
Electric to central adjustment	Automatic brightness
Objective lens adjustment	Auto focus
Objective degaussing	Automatic astigmatism elimination
Electric rotation adjustment	Management of microscope parameters
Electron beam displacement adjustment	Real time display of scanning field size
Electron beam tilt adjustment	Gun lens adjustment
Scanning speed adjustment	Multichannel input
Swing centering	Ruler measurement

	BSE: Semiconductor 4 Segmentation Back Scattering Detector Optional Model: A63.7069-LV BSE(LV): Semiconductor 4 Segmentation Back Scattering Detector CCD: Infrared CCD Camera	Optional	Optional
Extend Port	2 Extend Ports On Sample Room For EDS, BSD, WDS etc.	4 Extend Ports On Sample Room For BSE, EDS, BSD, WDS etc.	4 Extend Ports On Sample Room For BSE, EDS, BSD, WDS etc.
Specimen Stage	5 Axes Stage, 4 Auto +1 Manual Control Travel Range: X=70mm, Y=50mm, Z=45mm, R=360°, T=-5°~+90°(Manual) Touch Alert & Stop Function Optional Model: A63.7069-L 5 Axes Auto Large Stage	5 Axes Auto Middle Stage Travel Range: X=80mm, Y=50mm, Z=30mm, R=360°, T=-5°~+70° Touch Alert & Stop Function Optional Model: A63.7080-L 5 Axes Auto Large Stage	5 Axes Auto Large Stage Travel Range: X=150mm, Y=150mm, Z=60mm, R=360°, T=-5°~+70° Touch Alert & Stop Function
Max Specimen	Dia.175mm, Height 35mm	Dia.175mm, Height 20mm	Dia.340mm, Height 50mm
Image System	Real Still Image Max Resolution 4096x4096 Pixels, Image File Format: BMP(Default), GIF, JPG, PNG, TIF	Real Still Image Max Resolution 16384x16384 Pixels, Image File Format: TIF(Default), BMP, GIF, JPG, PNG Video: Auto Record Digital .AVI Video	Real Still Image Max Resolution 16384x16384 Pixels, Image File Format: TIF(Default), BMP, GIF, JPG, PNG Video: Auto Record Digital .AVI Video
Computer & Software	PC Work Station Win 10 System, With Professional Image Analysis Software To Fully Control Whole SEM Microscope Operation, Computer Specification No Less Than Inter I5 3.2GHz, 4G Memory, 24" IPS LCD Monitor, 500G Hard Disk, Mouse, Keyboard		
Photo Display	The Image Level Is Rich And Meticulous, Showing Real Time Magnification, Ruler, Voltage, Gray Curve		
Dimension & Weight	Microscope Body 800x800x1850mm Working Table 1340x850x740mm Total Weight 400Kg	Microscope Body 800x800x1480mm Working Table 1340x850x740mm Total Weight 450Kg	Microscope Body 1000x1000x1730mm Working Table 1330x850x740mm Total Weight 550Kg
Optional Accessories			
Optional Accessories	A50.7002 EDS Energy Dispersive X-Ray Spectrometer A50.7011 Ion Sputtering Coater	A50.7001 BSE Back Scattering Electron Detector A50.7002 EDS Energy Dispersive X-Ray Spectrometer A50.7011 Ion Sputtering Coater A50.7030 Motorize Control Panel	A50.7001 BSE Back Scattering Electron Detector A50.7002 EDS Energy Dispersive X-Ray Spectrometer A50.7011 Ion Sputtering Coater A50.7030 Motorize Control Panel

Product Accessories



A50.7001 BSE Detector
A50.7002 EDS (X Ray Detector)
A50.7003 EBSD (Electron Beam Backscattered Diffraction)
A50.7013 Critical Point Dryer



A50.7010 Coating Machine
A50.7011 Ion Sputtering Coater
A50.7012 Argon Ion Sputtering Coater
A50.7014 Electron Beam Lithography



A50.7030 Motorize Control Panel
Motorize Control Panel, Integrated Computer Mouse To Control Magnification, Brightness, Contrast, Focus, Working Stage Moving Easily.

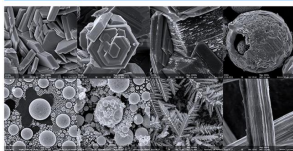
A50.7001	BSE Detector
A50.7002	EDS (X Ray Detector)

Semiconductor Four Segment Back Scattering Detector;
 Available In Ingredients A+B, Morphology Info A-B;
 Available Sample Observe Without Sputtering Gold;
 Available In Observe Impurity And Distribution From Grayscale Map Directly.

Silicon Nitride (Si₃N₄) Window To Optimize Low Energy X-ray Transmission For Light Element Analysis;
 Excellent Resolution And Their Advanced Low-noise Electronics Provide Outstanding Throughput Performance;
 The Small Footprint Offers Flexibility To Ensure Ideal Geometry And Aata Collection Conditions;
 The Detectors Contain A 30mm² Chip.

A50.7003	EBSD (Electron Beam Backscattered Diffraction)	<p>user could analysis crystal orientation, crystal phase and micro texture of materials and related materials performance,etc.</p> <p>automatic optimization of EBSD camera settings</p> <p>during the data collection, do interactive real-time analysis to obtain maximum information</p> <p>all the data were branded with time tag, which can be viewed at any time</p> <p>high resolution 1392 x 1040 x 12</p> <p>Scanning and index speed: 198 points / sec, with Ni as the standard, under the condition of 2~5nA, it can ensure the index rate ≥99%;</p> <p>works well under the condition of low beam current and low voltage of 5kV at 100pA orientation measuring accuracy: Better than 0.1 degrees</p> <p>Using triplex index system: no need rely on single band definition , easy indexing of poor pattern quality</p> <p>dedicated database: EBSD special database obtained by electron diffraction: >400 phase structure</p> <p>Index ability: it can automatically index all crystal materials of 7 crystal systems.</p> <p>The advanced options include calculating elastic stiffness (Elastic Stiffness), Taylor (Taylor) factor, Schmidt (Schmid) factor and so on.</p>
A50.7010	Coating Machine	<p>Glass Protecting Shell: ϕ 250mm; 340mm High;</p> <p>Glass Processing Chamber:</p> <p>ϕ 88mm; 140mm High, ϕ 88mm; 57mm High;</p> <p>Specimen Stage Size: ϕ 40mm (max);</p> <p>Vacuum System:molecula Pump And Mechanical Pump;</p> <p>Vacuum Detection: Pirani Gage;</p> <p>Vacuum:better Than 2 X 10⁻³ Pa;</p> <p>Vacuum Protection:20 Pa With Microscale Inflation Valve;</p> <p>Specimen Movement: Plane Rotation,tilt Precession.</p>
A50.7011	Ion Sputtering Coater	<p>Glass Processing Chamber: ϕ 100mm; 130mm High;</p> <p>Specimen Stage Size: ϕ 40mm(Hold 6 Specimen Cups) ;</p> <p>Golden Target Size: ϕ 58mm*0.12mm(thickness);</p> <p>Vacuum Detection: Pirani Gage;</p> <p>Vacuum Protection:20 Pa With Microscale Inflation Valve;</p> <p>Medium Gas:argon Or Air With Argon Gas Special Air Inlet And Gas Regulating In Microscale.</p>
A50.7012	Argon Ion Sputtering Coater	<p>The Sample Was Plated With Carbon And Gold Under High Vacuum;</p> <p>Rotatable Sample Table, Uniform Coating, Particle Size About 3-5nm;</p> <p>No Selection Of Target Material, No Damage To Samples;</p> <p>The Functions Of Ion Cleaning And Ion Thinning Can Be Realized.</p>
A50.7013	Critical Point Dryer	<p>Inner Diameter: 82mm, Inner Length: 82mm;</p> <p>Pressure Range:0-2000psi;</p> <p>Temperature Range:0°-50° C (32°-122° F)</p>
A50.7014	Electron Beam Lithography	<p>Based On Scanning Electron Microscope, A Novel Nano-exposure System Was Developed;</p> <p>The Modificaton Has Kept All The Sem Functions For Making Nanoscale Line Width Image;</p> <p>The Modifiedated Ebl System Widly Applied Into Microelectronic Devices, Optoelectronic Devices, Quantun Devices, Microelectronics System R&D.</p>

Real Effect



A60.7080, A63.7081 Standard Consumables Quilt			
1	Field Emission Filament	Installed In Microscope	1 Pc
2	Sample Cup	Dia.13mm	5 Pcs
3	Sample Cup	Dia.32mm	5 Pcs
4	Carbon Double-sided Conductive Tape	6mm	1 Package
5	Vacuum Grease		10 Pcs
6	Hairless Cloth		1 Tube
7	Polishing Paste		1 Pc
8	Sample Box		2 Bags
9	Cotton Swab		1 Pc
10	Oil Mist Filter		1 Pc
A60.7080, A63.7081 Standard Tools & Parts Quilt			
1	Inner Hexagon Spanner	1.5mm~10mm	1 Set
2	Tweezers	Length 100-120mm	1 Pc
3	Slotted Screwdriver	2*50mm, 2*125mm	2 Pcs
4	Cross Screwdriver	2*125mm	1 Pc

5	Clean vent pipe	Dia.10/6.5mm(Out Diameter/Inner Diameter)	5m
6	Vent pressure reducing valve	Output Pressure 0-0.6MPa	1 Pc
7	Internal baking power supply	0-3A DC	2 Pcs
8	UPS power supply	10kVA	2 Pcs

Working Condition, Requirement For Installation

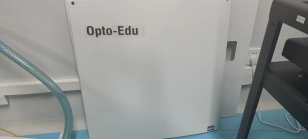
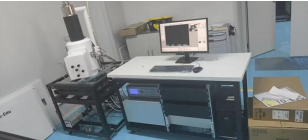
1. Applications:
SEM is mainly applied to the specimen surface appearance analysis. It is equipped with energy spectrum which is used for composition analysis and equipped with a small ion sputtering apparatus to help with sample surface treatment.
2. Power Supply Requirements:
2.1 Voltage: AC 220V \pm 10%; 50Hz \pm 1 Hz, standard sine wave.
2.2 It is not recommended to share the power supply line with the instrument for equipment with high power and large power consumption change.
2.3 Three power sockets needed for:
1. Scanning electron microscope instrument body, computer: AC 220V, 50Hz, 16A
2. Mechanical pump and air compressor: AC 220V, 50Hz, 16A.
3. Environmental Requirements For Installation Site:
3.1 It is recommended to keep the temperature between 10-30 $^{\circ}$ C.
3.2 The relative humidity shall be less than 85%.
3.3 Recommended configuration: air conditioner, dehumidifier and other equipment that can ensure the temperature and humidity of the laboratory.
3.4 Noise \leq 68 (dB)
3.5 The durability of the instrument operation: continuously working.
4. A63.7989 Instrument Dimension & Weight
Microscope Body 800x600x1480mm
Working Table 1340x550x740mm
Total Weight 450kg
The floor bearing capacity should \geq 250kg/m², and it is recommended to place it on the first floor.
5. A63.7989 Packaging Dimension & Weight
1 Set in 3 Wooden Boxes
1107*1107*1580mm *1
1277*1151*1360mm *1
1607*807*1111mm *1
Total Volume 5.3189CBM, Total G.W. 872 kg

After-sale Service

- Standard 1 Year Warranty Included
- Extend Warranty 1 Year Cost 12% of Sales Contract Amount
- On-Site Installation Cost USD3000.0 For 5-2 Days
- On-Site Maintenance Cost USD4500.0 For 3-2 Days
- Free Training for Visiting Customer in Beijing Included (Round Trip Ticket & Lodging Fee Not Included)
- Consumables Items & Accessories Available For All Life Time of Machine

More Pictures

[OPTO-EDU](#)



Scanning Electron Microscope Sample Preparation Instrument

OPTO-EDU



Ion Beam Milling (Polishing), Etc...

Model NO. A50.7038

A50.7038
Ion Beam Milling (Polishing),
Etching, Sputtering Machine

OPTO-EDU



Ion Beam Etching, Polishing, Thi...

Model NO. A50.7039

A50.7039
Ion Beam Etching, Polishing,
Thinning Machine

OPTO-EDU



Ultrathin Microtom

Model NO. A50.7080

A50.7080
Ultrathin Microtom