

用量子技术感知世界
FEEL THE WORLD IN A QUANTUM WAY



Field Emission Scanning Electron Microscope

SEM4000

Field emission scanning electron microscope / SEM4000



SEM4000 is an analytical thermal field emission scanning electron microscope equipped with a high-brightness, long-life Schottky field emission electron gun. Three-stage magnetic lens design, with large and continuously adjustable beam current, has obvious advantages in EDS, EBSD, WDS and other applications. Support low vacuum mode, can directly observe the conductivity of weak or non-conductive samples. Standard optical navigation mode, as well as intuitive operation interface, make your analysis work feel more relaxed.

Product advantage (* optional)



*Low vacuum mode



High resolution (1nm@30kV)



continuously adjustable beam current



*1min fast sample switch



Three-stage magnetic lens



Leak-free magnetic objective

Product feature (* optional)

01

Equipped with high brightness and long life Schottky field emission electron gun

02

High resolution, better than 1nm resolution at 30kV

03

Three-stage magnetic lens design, wide beam adjustable range

04

* High performance low vacuum secondary electron detectors, observe weak or non-conductive samples

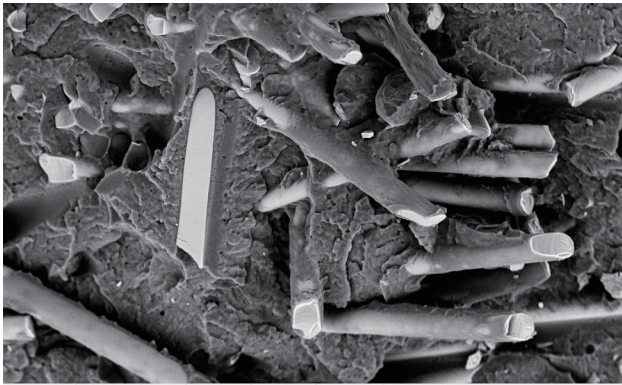
05

Leak-free magnetic objective design, can directly observe magnetic samples

06

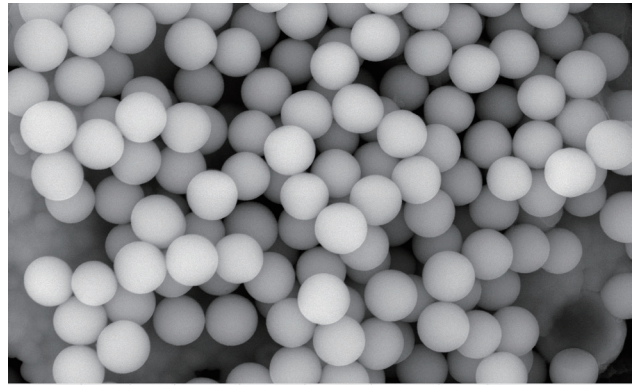
Standard optical navigation mode

Product application



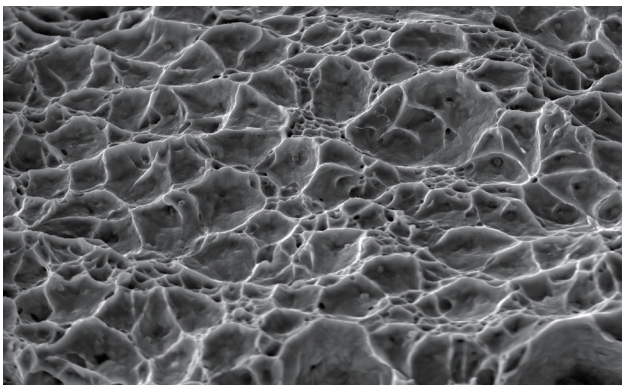
SEM4000	BSED Comp	HV 10kV	MAG x500	HFW 0.26mm	WD 4.91mm	Frames 1	20um
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PA-Glass fiber composite material
Acceleration voltage: 10 kV/magnification: ×500



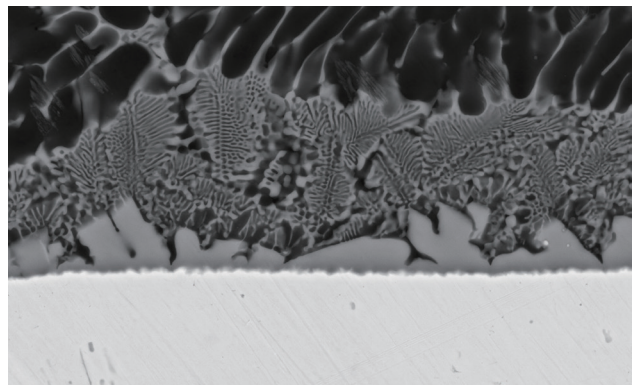
SEM4000	BSED Comp	HV 10kV	MAG.S x80000	HFW 5.08um	WD 5.73mm	High.V 1.3E-7Pa	Frames 1	Lines 5	500nm
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Silica microspheres
Acceleration voltage: 10 kV/magnification: ×80000



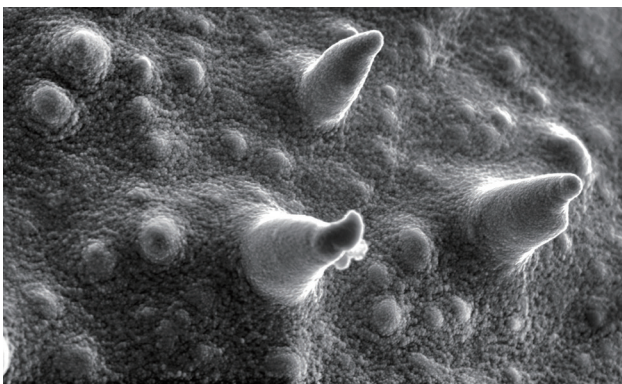
SEM4000	SE ETD	HV 15kV	MAG.P x5000	HFW 25.63um	WD 5.15mm	Frames 1	2um
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Metal fracture
Acceleration voltage: 15 kV/magnification: ×5000



SEM4000	BSED Comp	HV 20kV	MAG.S x10000	HFW 40.64um	WD 7.87mm	Frames 1	5um
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Metal microstructure (aluminum copper welding parts)
Acceleration voltage: 20 kV/magnification: ×10000



SEM4000	SE ETD	HV 10kV	MAG.S x50000	HFW 8.13um	WD 3.11mm	Frames 1	Lines 2	1um
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Cauliflower pollen
Acceleration voltage: 10 kV/magnification: ×50000



SEM4000	BSED Comp	HV 10kV	MAG x10000	HFW 12.81um	WD 6.59mm	Frames 1	1um
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Strontium barium titanate ceramics
Acceleration voltage: 10 kV/magnification: ×10000

Product specification

Key parameters	Resolution	1 nm @ 30 kV, SE 0.9 nm @ 30 kV, STEM
	Accelerating voltage	200 V ~ 30 kV
	Magnification	1 ~ 1,000,000 x
	Type of electron gun	High brightness schottky field emission electron gun
Sample room	Vacuum system	Fully automatic control
	Low vacuum (optional)	Max 180Pa
	Camera	Dual cameras (Optical navigation + in-warehouse monitoring)
	Distance	X: 120 mm Y: 115 mm Z: 50 mm T: -10°~ +90° R: 360°
Detector and extension	Standard configuration	Low angle lateral secondary electron detector
	Optional configuration	Low vacuum detector (LVD) Backscattered electron detector (BSE) STEM detector EDS EBSD Sample exchange warehouse Trackball & Knob control panel
Software	Language	Chinese/English
	OS	Windows
	Navigation	Optical navigation, gesture navigation
	Automatic function	Auto brightness contrast, auto focus, auto astigmatism