

BSEM-400 Field Emission Scanning Electron Microscope



BSEM-400

Introduction

BSEM-400 is an analytical field emission scanning electron microscope equipped with a high-brightness long-life Schottky field emission electron gun. With the three-stage condenser electron optics column design and the large continuously adjustable beam current, BSEM-400 delivers advantages in EDS, EBSD, WDS, and other analytical applications. The system supports low vacuum mode, which can help directly observe poorly conductive or even non-conductive samples. Standard optical navigation mode, as well as an intuitive user operation interface, makes your analysis work easy.

Feature

1. High resolution

The resolution is better than 1nm resolution at 30 kV.

2. Three-stage Condenser Lens and continuously adjustable beam current

Three-stage condenser lens design, wide beam current adjustable range.

3. Schottky field emission electron gun

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

4. Non-immersion Magnetic Field Free Objective Lens

Non-immersion magnetic field free objective lens design, can directly observe magnetic samples.

5. Standard optical navigation mode

The standard optical navigation mode and software make analysis work easier.

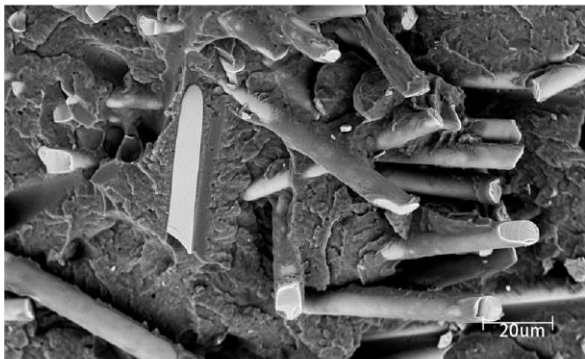
6. Low vacuum mode

High-performance low vacuum secondary electron detectors, observe poorly conductive or non-conductive samples.

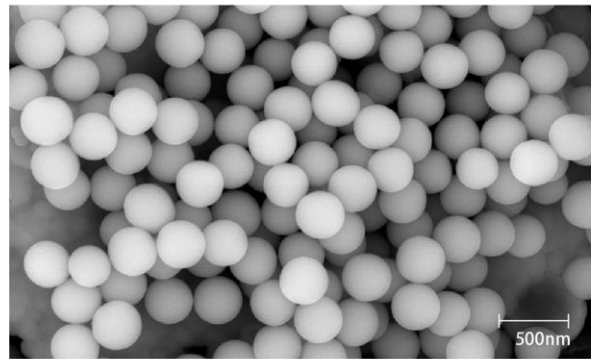
7. 1 min fast specimen switch

Easy and fast to switch the specimen.

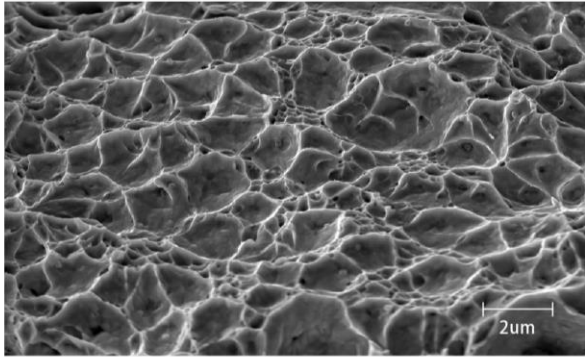
Application



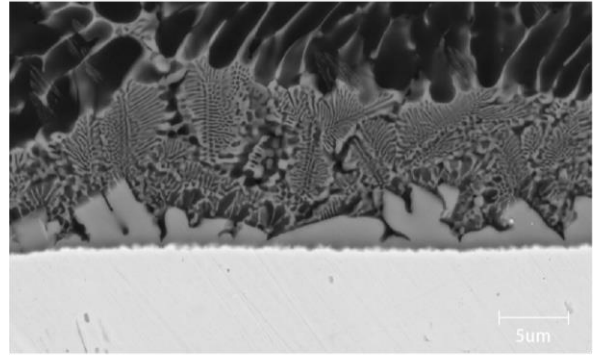
PA-Glass fiber composite material
10kV / 500X / BSED Comp



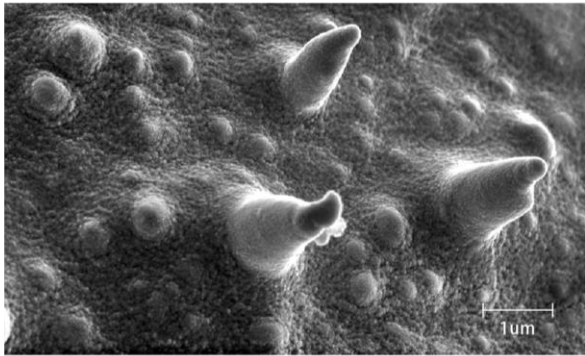
Silica microspheres
10 kV / 80,000X / BSED Comp



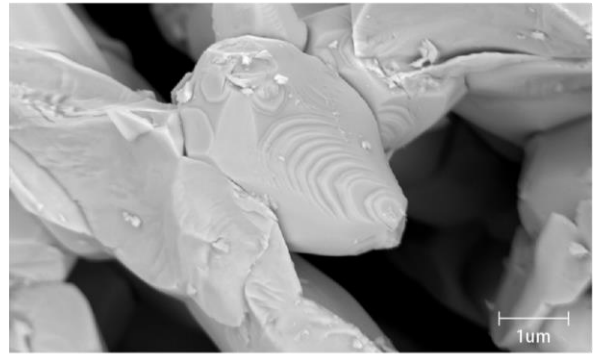
Metal fracture
15 kV / 5,000X / SE ETD



Metal microstructure (aluminum copper welding parts)
20kV / 10,000X / BSED Comp



Cauliflower pollen
10 kV / 50,000X / SE ETD



Strontium barium titanate ceramics
10 kV / 10,000X / BSED Comp

Specification

Item	Specification	BSEM-400	
Electron Optical System	High Brightness Schottky Field Emission Electron Gun	●	
	Resolution: 1nm@30kV (SE),0.9nm@30kV (STEM)	●	
	Magnification: 1-1,000,000x	●	
	Accelerating voltage: 200V-30kV	●	
Detector and Extension	Everhart-Thornley Detector (ETD)	●	
	Low Vacuum Detector (LVD)	○	
	Backscattered Electron Detector (BSE)	○	
	Vibration Isolation table	○	
	Trackball & Knob Control Panel	○	
Specimen Chamber	Vacuum system: Fully Automated Control	●	
	Low vacuum: Max 180 Pa	○	
	Camera	Dual Cameras	●
		Optical navigation	○
		In-chamber monitoring	○
	Stage Range: X: 120mm. Y: 115mm. Z: 50mm. R: 360° T: -10° - +90°	●	
Software	Windows. Nav-Cam, Gesture Quick Navigation. Auto Brightness & Contrast, Auto Focus, and Auto Stigmator.	●	

Note: ● Standard Outfit, ○ Optional