

SEM

Scanning Electron Microscope

YL EZSEM Series

YL HPSEM Series



TABLE-TOP EZSEM Series

NAVIGATION TO NANOWORLD WITH EZSEM

YL provides convenient Table-top EZSEM to industries and educational institutes providing high resolution images precisely and quickly. EZSEM enables to observe nano-world and obtain high quality images without excessive expenses.

High Quality Images with Economical Price

EZSEM helps customers to obtain μm and nm quality images within a few minutes. The compact design of EZSEM enhances space efficiency in the laboratories. EZSEM is the most reasonable instrument which helps researchers to give visual explanation in their study reports.

THE WISE SEM FOR YOUR APPLICATION

■ Material Analysis

EZSEM helps to get material characteristics through providing precise images and analyze deep submicron or nanometer structures. Alteration of material caused by pressure or heat can be detectable using EZSEM. High depth of field and clear image would be the best solution to find defects and changes of various materials.

■ Pharmaceutical and Chemical Industries

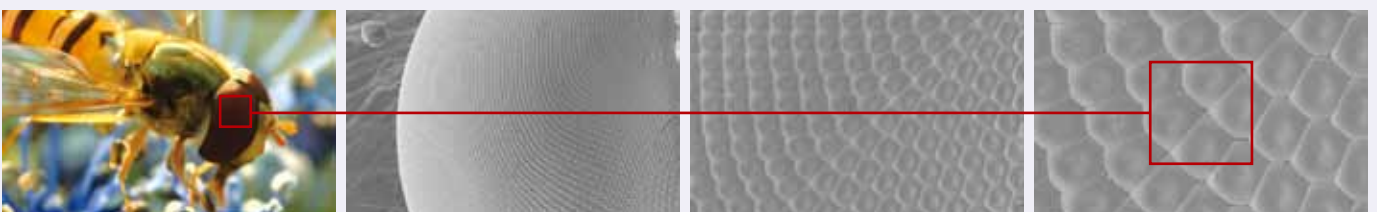
The research in pharmaceutical and chemical industries is getting subdivided into various fields to study materials in nanometer-size. EZSEM can be utilized to view nanometer samples precisely and eventually help researcher to get exact output what is needed.

■ Quality Control

Tiny defects can be found exactly through having high quality images with EZSEM. Also, deep submicron cracks that are hardly found by an optical microscope can be detectable. Inspection with EZSEM may find out problems in manufacturing process and hence quality of product can be upgraded into higher level.

■ Educational Purpose

EZSEM leads students into the nano-world of science that has not been viewed practically in school. Now, numeral applications such as cells, insects, pollens, metal textures, forensic evidences would be applicable. This instrument may derive students' curiosity of nano-world which help to discover a talent of students.



Scanning Electron Microscope TABLE-TOP EZSEM Series



■ Specification: EZSEM-20

Magnification	x 20 ~ x 80,000
Resolution	7nm [at 20kV, SE Image]
Accelerating Voltage	1~20kV (1/3/5/10/15/20kV)
Electron Gun	Tungsten Filament (W)
Detector	SE Detector
Stage	X:35mm (Motorized), Y:35mm (Motorized), R:360°, Z:0 to 50mm
Sample Size	45mm (H), 60mm (Diameter)
Image Mode(Pixel)	RED(320x240), TV(640x480), Slow(800x600), Photo(1280x960, 2560x1920, 5120x3840)
Frame Rate	RED (Max. 30 frames/sec), TV (Max. 10 frames/sec), Slow (Max. 2 frames/sec)
Vacuum System	Turbo Molecular Pump
Auto Functions	Focus, Filament, Brightness/Contrast
OS	Windows 7
Operation	Key Board/Mouse
Dimension	400(W) x 600(L) x 550(H)mm, 100kg



■ Specification: EZSEM-30

Magnification	x 20 ~ x 100,000
Resolution	5nm [at 30kV, SE Image]
Accelerating Voltage	1~30kV (1/3/5/10/15/20/30kV)
Electron Gun	Tungsten Filament (W)
Detector	SE Detector(Option: BSE.EDS)
Stage	X:35mm (Motorized), Y:35mm (Motorized), T: 0 to 45° (Motorized), R:360°, Z: 0 to 50mm
Sample Size	45mm (H), 60mm (Diameter)
Image Mode(Pixel)	RED(320x240), TV(640x480), Slow(800x600), Photo(1280x960, 2560x1920, 5120x3840)
Frame Rate	RED (Max. 30 frames/sec), TV (Max. 10 frames/sec), Slow (Max. 2 frames/sec)
Vacuum System	Turbo Molecular Pump
Auto Functions	Focus, Filament, Brightness/Contrast
OS	Windows 7
Operation	Key Board/Mouse, Full Touch Screen (Option)
Dimension	400(W) x 600(L) x 550(H)mm, 100kg

HPSEM-200 Series

HIGH PERFORMANCE, EASY TO USE HPSEM-200

Have you ever thought Scanning Electron Microscope should be easy enough to operate and be shared commonly among numeral users? HPSEM-200 offers high resolution and convenient operation so that anyone can obtain high magnification with a finger tip.

BEGINNERS RECOGNIZE EASILY HOW TO GET THE BEST QUALITY IMAGE WITH HPSEM-200

Nanostation operation system of HPSEM-200 enables the auto stage navigate just in accordance with mouse click similar to navigating google map. Zoom in and out operation from the screen image could be accomplished simply by mouse wheel rolling. Like this way, it makes even beginners obtain high resolution images in a short training.

INNOVATIVE TECHNOLOGY, HPSEM-200 WITH NANOSTATION

■ 5-axis Auto Stage System

HPSEM-200 supports 5-axis(X,Y,Z,T,R) Auto Stage which makes specimen move as you wish. Feel the convenience!

■ Click & Move System

The sophisticated Auto Stage of HPSEM-200 enables users to move specimen with a mouse click on the screen image.

■ Zoom in & out System

Zoom in and out operation from the screen image could be accomplished simply with mouse wheel rolling. Magnification control is extremely simple with this functionality.

■ Multi Display Mode

HPSEM-200 supports additionally 5 display modes and the Average Functionality. Users can enjoy various shape what they want.

■ High Quality Image

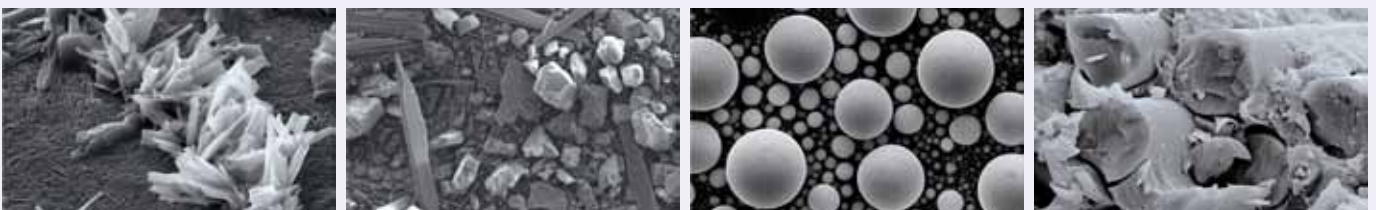
HPSEM-200 supports images up to 5,120 x 3,840 pixels which are adequate in developing huge picture.

■ Histogram

HPSEM-200 provides Histogram functionality to get more precious picture.

■ User Defined Hot Key

This is to implement the frequently used function quickly.



Scanning Electron Microscope HPSEM-200 Series



■ Specification: HPSEM-200TA

Magnification	x 15 ~ x 300,000
Resolution	3.0nm [at 30kV, SE Image]
Accelerating Voltage	1~30kV
Electron Gun	Tungsten Filament (W)
Detector	SE Detector(Option: BSE.EDS)
Stage	5 Axis Full Auto Stage X:40mm, Y:60mm, T:-20° ~ 90° R:360°, Z: 0 to 60mm
Sample Size	60mm (H), 130mm (Diameter)
Image Mode(Pixel)	RED(320x240), TV(640x480), Slow(800x600), Photo(1280x960, 2560x1920, 5120x3840)
Frame Rate	RED (Max. 30 frames/sec), TV (Max. 10 frames/sec), Slow (Max. 2 frames/sec)
Vacuum System	Turbo Molecular Pump
Auto Functions	Focus, Filament, Brightness/Contrast
OS	Windows 7
Operation	Key Board/Mouse
Dimension	800(W) x 900(L) x 1500(H)mm, 400kg



■ Specification: HPSEM-200TM

Magnification	x 15 ~ x 300,000
Resolution	3.0nm [at 30kV, SE Image]
Accelerating Voltage	1~30kV
Electron Gun	Tungsten Filament (W)
Detector	SE Detector(Option: BSE.EDS)
Stage	Only Z Axis Auto Stage X:40mm, Y:40mm, T:-20° ~ 90° R:360°, Z:0 to 60mm
Sample Size	60mm (H), 130mm (Diameter)
Image Mode(Pixel)	RED(320x240), TV(640x480), Slow(800x600), Photo(1280x960, 2560x1920, 5120x3840)
Frame Rate	RED (Max. 30 frames/sec), TV (Max. 10 frames/sec), Slow (Max. 2 frames/sec)
Vacuum System	Turbo Molecular Pump
Auto Functions	Focus, Filament, Brightness/Contrast
OS	Windows 7
Operation	Key Board/Mouse
Dimension	800(W) x 900(L) x 1500(H)mm, 400kg

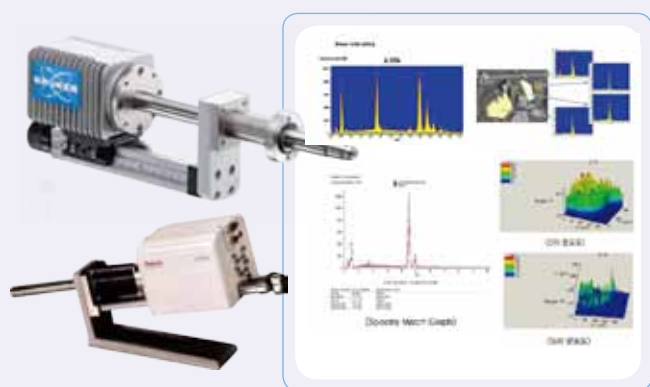
Application

Optional Detector

■ EDS X-ray Detector

EDS X-ray detector can be equipped into HPSEM-series and EZSEM-series. Element analysis is fundamental factor to analyze extraneous substance or basic element in a tiny region of specimen.

To find the exact reason of failure, EDS detector is the best solution.



■ BSE Detector

YL provides semiconductor type 4 channel BSE detector in addition to SE detector with BSE detector, specimen with non-coating is also observable and the boundary interface of alloy sample can be disentangled. You will get dynamic images with BSE detector attachable into HPSEM-series or EZSEM-series.



■ Ion Coater[KIC-1A/SPT-20]

To use Scanning Electron Microscope, Ion Coater is almost necessary to preprocess specimen with Au or Pt. YL offers economical Ion Coater having precise coating accuracy and simple operation method at proper cost. YL's Ion Coater might be sufficient to meet users' needs.

Target	Au & Pt possible
Target Size	50mm
Power	220V/60Hz, 500W
Ionization Current	1~7mA
Chamber Size	100mm[Diameter]
Dimension	380(W) x 250(L) x 330(H)mm



SPT-20 is to be rolled out in Aug.



Optional Function

■ LV(Low Vacuum) System

This option will support users to analyze critical specimen which should be handled at low vacuum. In addition, viscous specimen can be analyzable when LV System is combined with BSE detector.

■ Cool Stage

Treating specimen such as bionic or fluid, Cool Stage freezes specimen at -25°C and enables users to analyze specimen precisely.





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