



JSM-IT500HR InTouchScope™ Scanning Electron Microscope

Features

Information

Features

Introducing a new addition to our JEOL InTouchScope™ series SEMs, the JSM-IT500HR.

Increase your productivity with our fully-integrated software, from specimen navigation to analysis to report creation.

This state-of-the-art SEM, with its high-brightness electron gun system, provides amazing high-resolution imaging along with high sensitivity and high spatial resolution analysis at even faster speeds.



Introductory video

JEOL JSM-IT500HR InTouchScope™ Scanning El...



◆Click the play button in the above box to watch the video.◆

Zeromag and high-resolution imaging

Zeromag image on the main screen

Magnify OM image

Magnify SEM image

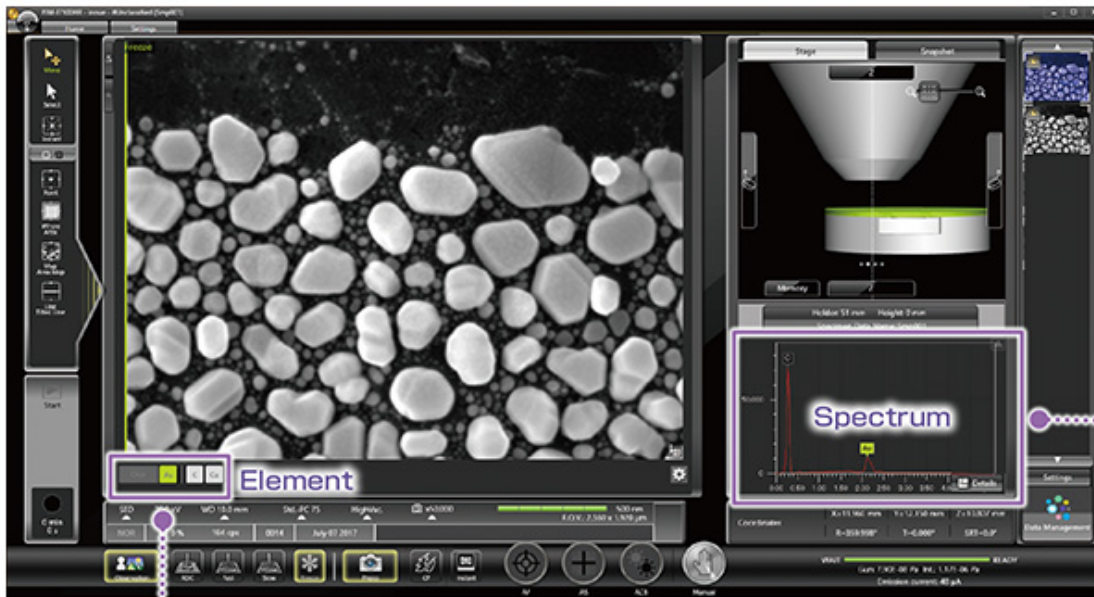
Magnify SEM image

Specimen: Zinc oxide grown on the sapphire
Accelerating voltage: 25 kV
Magnification: ×100,000
High vacuum mode
Secondary electron image

Specimen provided by:
Mutsukura and Shinoda Research Lab, Department of Electrical and Electronic Engineering,
School of Engineering, Tokyo Denki University

High resolution observation is at your fingertips with our new high-brightness electron gun and lens system. Zeromag simplifies navigation, breaking the boundary between the optical and SEM image. The optical image (using our Stage Navigation System) in the main display can be used to locate the area of interest and set analysis points. By zooming in, you will transition automatically to the live SEM image.

Element analysis in a flash



Spectrum Display
Characteristic X-ray spectrum of the measured field of view and automatic quantified analysis results are always displayed.

Specimen: Gold particle on carbon Accelerating voltage: 20 kV Magnification: ×100,000
High vacuum mode Secondary electron image

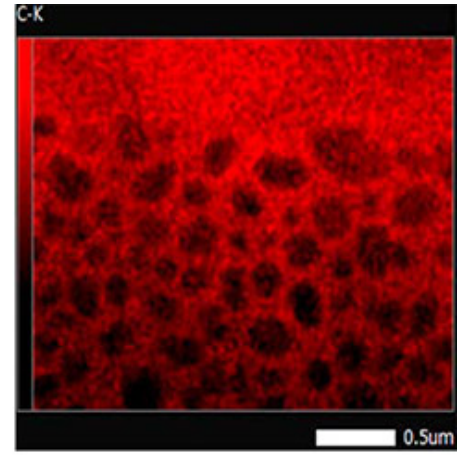
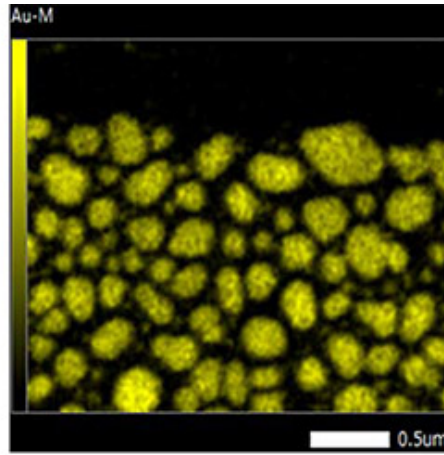
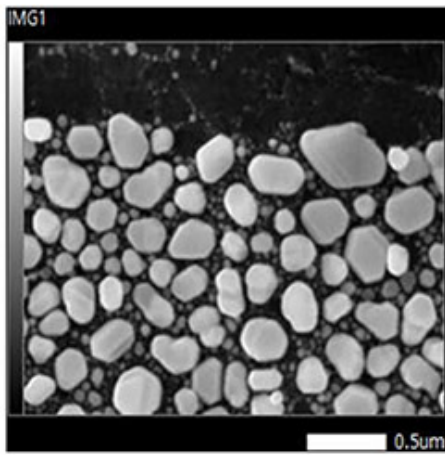
Element Display

The main elements that exist while measuring the field of view are displayed.
Elements can be specified and an alert displayed.

The Live Analysis feature with our analytical models provides a real time EDS spectrum during image observation. The main elements are identified automatically and displayed on the observation screen. Finding foreign material or validating composition has never been easier.

High speed mapping and long acquisition analyses

Mapping results in 70 seconds!



Specimen: Gold particle on carbon Accelerating voltage: 20 kV Magnification: ×500,000 Map acquisition time: 70 seconds

JEOL JSM-IT500HR Feature1_Zeromag/LiveAnal...



◆Click the play button in the above box to watch the video.◆

The JSM-IT500HR has a high-brightness, long life emitter with stable probe current. This is ideal for acquisitions over long periods such as automated large area mapping. Also, our larger area EDS detectors allow for high speed X-ray maps.

Montage

JEOL JSM-IT500HR Feature2_Montage (EN)



◆Click the play button in the above box to watch the video.◆

Montage is an effective function for identifying foreign materials over large areas and also for analyzing fractured-surface.

Integrated data management software: SMILE VIEW™ Lab

The field of view names are displayed

Data can be searched from the specimen name, creation date, and data type.

The field of view positions are displayed on the holder graphic or CCD image*1.

Data, such as the element map for the selected field of view and spectrum, and quantitative analysis results are displayed in a list.

*1 An optional SNS is required to capture CCD images.
*2 Applied to Low Vacuum & Analysis (LA)

Name	User name	Creation date	Modified date	Folder name	Data type	C	O	Mg	Al	Si	P	S	K	Ca	Fe
Gry_001				Pj_001\Smp_0...	Map										
Map_001	JKL	2016/12/01 17:44	2016/12/01 17:53	Pj_001\Smp_0...	Map										
Sem_BSD-C_001	JKL	2016/12/09 11:41	2016/12/09 11:41	Pj_001\Smp_0...	File Image										
Sem_BSD-C_002	JKL	2016/12/09 11:41	2016/12/09 11:41	Pj_001\Smp_0...	File Image										
Sem_BSD-C_003	JKL	2016/12/09 11:46	2016/12/09 11:46	Pj_001\Smp_0...	File Image										
Sem_BSD-C_004	JKL	2016/12/09 11:52	2016/12/09 11:52	Pj_001\Smp_0...	File Image										
Sem_BSD-C_017	JKL	2016/12/01 17:34	2016/12/01 17:34	Pj_001\Smp_0...	File Image										
Sem_SED_001	JKL	2016/12/01 16:47	2016/12/01 16:47	Pj_001\Smp_0...	File Image										
Smp_0001	JKL	2016/12/09 11:25	2016/12/01 18:09	Pj_001\Smp_0...	Sample L...										
Spc_001	JKL	2016/12/01 17:39	2016/12/02 17:40	Pj_001\Smp_0...	Spectrum	6.44	47.23	2.67	30.11			1.25	10.20	100.00	
Spc_001	JKL	2016/12/09 11:47	2016/12/09 11:48	Pj_001\Smp_0...	Spectrum	47.74	41.88	0.56	0.17	7.34	0.19	0.58	1.54	100.00	
Spc_002	JKL	2016/12/09 11:52	2016/12/02 17:34	Pj_001\Smp_0...	Spectrum										

JEOL JSM-IT500HR Feature3_Report (EN)



◆Click the play button in the above box to watch the video.◆

SMILE VIEW™ Lab is a central data management software program which links the Stage Navigation Image, stage positions, SEM images and EDS results. With this software, you can quickly create reports incorporating all this data.

On the SMILE VIEW™ Lab data management screen, all data can be managed as one. Low magnification images from holder graphics and Stage Navigation System images, observation positions, images and analysis results are saved in a project. Review and re-analysis of previously obtained data as well as creating reports is easy.

Related Links

- [JSM-IT500HR Special site >](#)
- [News release](#)
[Launch of the new scanning electron microscope JSM-IT500HR in the InTouchScope™ series >](#)

Catalogue

Catalogue

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