

# JEOLink

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JEOL USA Newsletter

July 2007

## In This Issue

**New Direct Write E-Beam Tool  
Unsurpassed Surface Details  
with LABe**

**SEM Auto Defect Classification  
See us at Semicon West**

**A Unique Program for Electron  
Microscopists**

### JEOL wins two service awards in 2007

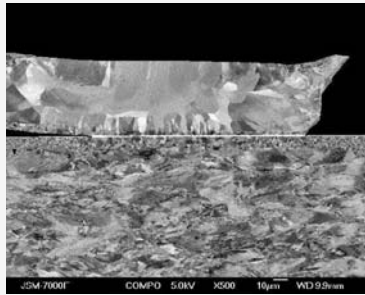
JEOL is committed to technical leadership and world class service and support. In 2007, the company received two prestigious awards with the highest scores for service in the company's category of businesses with related markets.

We hope you feel as we do that our skill and the understanding of our imaging and analytical technology, the requirements in the industry, and the level of service and applications support set JEOL apart.

Extreme Image

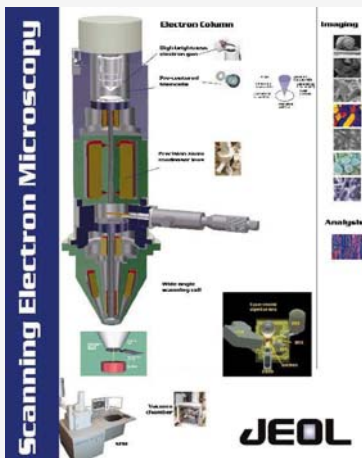
Dear Colleague,

Welcome to the Semicon West 2007 edition of *JEOLink*. We hope you'll visit us at Semicon this year, or contact us if you are interested in learning more about our high resolution electron microscopes, wafer inspection SEMs, sample preparation tools, and e-beam systems. Contact us at [jeolink@jeol.com](mailto:jeolink@jeol.com). Should you prefer not to receive future issues, you can select unsubscribe at the bottom of this document . Enjoy!



Clean ion slicing of a wire bond preserves the interfaces for unmatched imaging quality. The [JEOL Cross Section Polisher](#) has produced amazing results for showing voids in contrasting layers, adhesion between materials, and large area cross sections. If you would like a DVD explaining how it works, or one of our new posters of cross sections, please contact us at [jeolink@jeol.com](mailto:jeolink@jeol.com).

### Poster Illustrates SEM Technology



A full color poster highlights features of the electron column and SEM technology. To request yours, contact us at [jeolink@jeol.com](mailto:jeolink@jeol.com).

### Quick Links...

[JEOL USA Online](http://www.jeolusa.com)  
[www.jeolusa.com](http://www.jeolusa.com)  
[Products](#)

## New Direct Write E-Beam Lithography Tool

*Ideal for academic research centers*



JEOL USA has a new high resolution direct write e-beam lithography system to complement its family of spot beam, vector scan systems and mask production tools.

The new JBX-5500FS direct write lithography tool writes patterns at a minimum line width of 10nm at 50kV on up to 100mm substrates. The PC-controlled operating platform features a simple graphical user interface (GUI) for pattern design and machine control. [More...](#)

[Product Specifications.](#) To read the article in *Semiconductor International Online*, [click here](#).

### *JEOL celebrates 40 years of e-beam expertise!*

Since 1967, JEOL has been committed to e-beam lithography. JEOL has the widest e-beam product range, from mask-making tools to direct write systems.

### JEOL at Semicon West Low kV High Resolution SEM Demonstrations

See why the Low Angle Backscatter Detector (LABe) feature of the JSM-7500F sets this FE SEM apart. JEOL will demonstrate the unsurpassed surface detail and low kV operation at Semicon West 2007, booth #7411. To learn more about the JSM-7500F, visit our web page or contact your local sales representative for a demo at our east and west coast offices.

Compare the results from three detectors in these SEM images of a DVD-RAM. The JSM-7500F LABe reveals the most surface detail with the least charging. [JSM-7500F SEM.](#)

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## JEOL USA Mission Statement

*Achieve customer fulfillment and loyalty by delivering outstanding technology and superior support while maintaining a leadership position in the industries and institutions that we serve.*

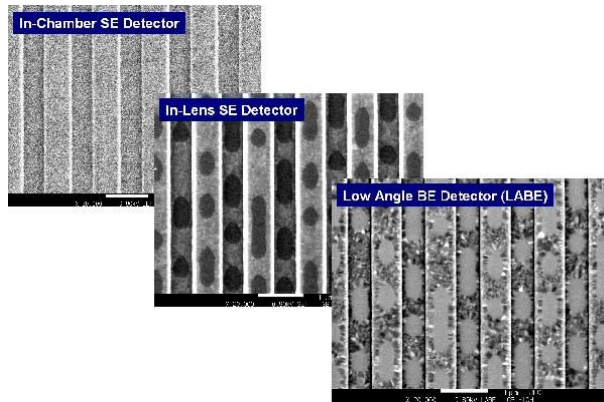
## Upcoming Meetings and Tradeshows



[Semicon West](#) - San Francisco, California

[Microscopy & Microanalysis](#) - Ft. Lauderdale, Florida

[International Materials Research Congress](#) - Cancun, Mexico



## SEM Auto Defect Classification Improve CoO without Loss of Yield

SEM ADC is becoming a viable technology in the field of yield enhancement. Now that defect size is beyond the optical resolution, SEM is the essential review tool and ADC greatly improves CoO without risk of yield loss.

A recent paper describes the results of a SEM ADC experiment conducted by JEOL and Freescale Semiconductor. [Click here to download the pdf file.](#)

Class	Killer (*_K)	Non-Killer (*_NK)
PAT_FLAT		
INFIL_PART		
PARTICLE		
PAT_OTHER		
OTHER		

To learn more about JEOL's line of wafer inspection SEMs, including 360 degree wafer edge review, visit our [Semiconductor product pages.](#)

## Semicon West 2007 Product Lineup

### Wafer Processing - Booth #1105

JEOL offers a wide range of tools for failure analysis, nanolithography, and automatic defect review (ADR) and classification (ADC). In the South Hall, we will spotlight our ultrahigh resolution field emission scanning electron microscope (SEM), our family of ADR systems for 150-300mm wafers, and a precision nano-probing system that locates and marks defect sites in multi-layer semiconductor devices. With the introduction of a new, compact direct write system, the JBX-5500FS, JEOL celebrates 40 years of e-beam expertise and offers a family of direct write tools with minimum line widths down to 8nm. JEOL has the widest range of direct write and mask writing tools.

### Test/Assembly/Packaging - Booth #7411

In the spotlight is the new SEM from JEOL, which will be operating in our West Hall booth. We will demonstrate the ultrahigh resolution and 1,000,000X imaging of the new JEM-7500F field emission SEM. The SEM will be equipped with the new EDAX Silicon Drift Detector (SDD). Our unique cross section polisher for precision cross sectioning of samples up to 11mm wide, ideal for solder bumps, interconnections, and composites. Additionally our field-proven STEM, the JEM-2500, is simple to use and produces

ultrahigh resolution images of cross sections.



### San Joaquin Delta College: A Unique Program for Electron Microscopists

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For nearly 40 years, students enrolled in the San Joaquin Delta College electron microscopy curriculum have been part of a unique two-year certificate program dedicated to practical, hands-on training of the future EM technician. It is one of only two such programs at the community college level in the country.



Read more about SJ Delta College's Center for Microscopy and Allied Sciences on JEOL's REALab pages.