

## The SV Micro Digital Camera by Sound Vision

Electrolmage, Inc. is the international distributer for the new SV Micro digital camera from Sound Vision, Framington, MA. The SV Micro's low-cost package includes many sought-after features of digital cameras costing much more. The camera's $1000 \times 800$ CMOS chip produces true 2.2 MB or 8.8 MB interpolated images. Easy-to-use software produces high-resolution images quickly and with minimum touch-up. Other features include C-mount interface, image integration, on-screen focusing with zoom, integration for low-light, including bright fluorescence. The SV Micro is avalable in a SCSI version (for Macintosh and Windows 95, 98 \& NT) or parallel (for Windows 95 \& 98). The SV Micro can be easily mounted on most copystands for macro work.
For more information, please contact:
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Circle Reader Inquiry $\$ 40$


Hitachi Introduces First Optical Shallow Defect Analyzer
Designed To Find defects In Silioon Wafers
Hitachi Scientific Instuments has made awailable their new Optical Shallow Defect Analyzer, the OSDA-2000. It is designed to nondestructively detect and measure defects as small as $0.02 \mu \mathrm{~m}$ inside the silican wafer and $0.05 \mu \mathrm{~m}$ on the silicon wafer surface prior to circuitry fabrication. Typical defects found include grown-in defects, stacking faults, oxygen precipitation, Crystal Originated Particles (COPs), pol ishing and process induced damage, defects in epitaxial layer, slip lines, haze and surface particles.
${ }^{\text {t }}$ Using defective wafers can cause problems serious enough to result in device failure," said Mr. Hideo Naito, assistant director for Electron Microscope Systems Group. For example, crystal defects near the surface and shallow region of silican wafers have been found to cause such problems as gate oxide breakldown, degradation of P-N junctions, or inferior refresh function capability of DRAMS. The OSDA-2000 ensures that only high quality wafers will be used to handle the demands of integrating increasingly miniaturized Large Scale Integrated Circuits (LSis). This is critical to improving high production yield of LSIs, minimizing process damage and ensuring continued development of next generation LSIs."

The OSDA-2000 also provides far greater
perfornance then traditional optical-based defect analyzers. For example, the OSDA-2000 finds defects as small as $0.02 \mu \mathrm{~m}$ while providing the depth information necessary to distinguish between shallow-and-small and deep-and-large defects. It features a $0.5 \mu \mathrm{~mm}$ measurement range with deplh information and a $5 \mu \mathrm{~m}$ maximum detectable depth. Depth resolution is $\pm 0.1 \mu \mathrm{~m}$.

The OSDA-2000 finds defects by irradiating two laser beams of different wavelengths onto a silicon wafer surface. Then, the OSDA detects with high sensitivity the scattered light created by the crystal defects inside of the silicon wifer.

For further information, contact Nissei Sangyo America, Ltd.: (650)969-1100, eMail: sidsales@nissei.ccm, or at ww.nissei.com

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## Fast Automatic Real-Time Image/X-Ray Analyzer Exclusively For SEM's

AutoSEM 1 is a PC based image analyzer and x-ray analyzer that works with wirtually any scanning electron microscope. AutoSEM 1 produces particleffealure and field data such as area, size distribution, number of features per field, percent area coverage, etc. and performs $x$ ray analysis on each feature for thousands of features. It operates livelinteractively or automatically without operator attendance, and is ideal for new, or to upgrade existing, SEMs.

In analyzing mode, AutosEM 1 automatically takes the signal and starts searching as a resolution fine enough to find a feature, but coarse enough to allow rapid searching. When a feature is found, the resolution is increased to measure the feature to a precision specified by the user. The bream stops in the centroid of each feature and $x$-ray analysis is performed automatically. Search resolution may be as low as $8 \times 8$ pixels while the measurement resolutions can be as high as $16 \mathrm{~K} \times 16 \mathrm{~K}$ pixels.
Advanced Research Instruments Corporation Tel.: (303)449-2288 - Fax: (303)449-9976

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## USED GOUIPMEAT FOR SALE

융 HITACHI 510 SEM with backscatter and secondary detectors, 2 (two) PGT EDS systems with software available. All fully functional. (812) $\mathrm{B2} 25-4617,6-10 \mathrm{PM}$ Eastern.

율 MILITARY RESEARCH LAB IS CLOSING - Military contractor is selling at drastically reduced prices its Reichart Polycut \& motorized sliding mierotome, refrigerated and rotary microtomes, Sorvall ultramicotome, LKB knife cutter, Gatan Model 600 dual ion mill, stereo microscopes, Perkin Elmer microdensitometer, Joyce Loebl microdensitometer and LECO sulfur analyzer. For specification sheets, call: (202)5440836.

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- SEM Microscopist / Metallurgical Engineer: SEM and cotical microscopy, image analysis and microhardness testing. Failure analysis of ferrous, copper, and aluminum alloys, Sample preparation experience. Compensation commensurate with experience. Fax resume to (216)3834765. The Lincoln Electric $\mathrm{Co}_{4}$, Cleveland, OH. wuw. Incolnelectric,com Equal cpportunity employer.
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