



Scanning Electron Microscope

The DSM 950 features integrated frame store for optimization of signal-to-noise ratio and fatigue-free full frame display without scan interference. The digitized video signal in the frame store enables a pseudocolor display on the color monitor. All operations are digitized. The DSM 950's digitally controlled electron optics and digitally processed video signals are all interconnected via BUS structures. Remote control provides a high potential for automation. A new backscattered electron detector with YAP monocrystal scintillator and symmetrical signal collection through optimized light geometry yields resolution $\Delta Z < 1$; 5 nanometers guaranteed. Specimens with diameters up to 250 millimeters may be accommodated. Specimens with 150-millimeter diameters may be examined in full. A condenser zoom system eliminates corrections of focus, astigmatism, aperture, and image shift. All condensers are interrelated via digitally stored current values. Carl Zeiss. Circle 616.

Monoclonal Antibodies for Study of Immune System

Three Coulter Clone monoclonal antibodies (2H4-RD1, 4B4-RD1, and TA1-RD1) enable users to identify functional T4 subsets that play precise roles in the onset of autoimmune and immune deficiency diseases. Anti-2H4-RD1 defines the functionally unique T4+ subset, Suppressor Inducer, which falls dramatically

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card (on pages 1028A and 1124A) and placing it in a mailbox. Postage is free.

—RICHARD G. SOMMER

in certain patients with the onset of SLE. The 4B4-RD1 defines the T4+ cell subset, Helper Inducer, and may be useful in evaluating acquired immune deficiency syndrome. These major subsets may be identified simultaneously with Coulter Clone T4-FITC. The TA1-RD1 is a cell-specific activation antibody. Increased amounts of TA1+ cells in peripheral blood has been correlated positively with systemic immune activation in patients with multiple sclerosis. Coulter Immunology. Circle 615.

Supercomputer

The CRAY-2 is a multiprocessor system comprising a foreground processor and four independent background processors. It features a 256-million-word common memory (more than 2 billion bytes) and a clock cycle time of 4.1 nanoseconds. Each background processor offers a high-speed local memory of 16,384 64-bit words and contains registers and functional units to perform both vector and scalar operations. Local memory is used as a register to hold scalar operands during computation and as temporary storage of vector segments used more than once in a computation. A control section in each background processor contains registers and instruction buffers for issue of instructions and control. The common memory is randomly accessible from any background processor or high-speed and common data channels. Common memory is arranged in four quadrants of 32 banks each. Total memory bandwidth is 1 billion words per second. The foreground processor is connected to four 4-gigabit communication channels. Up to 40 input-output devices may be used. The software includes an operating system based on Unix System V, an automatic vectorizing FORTRAN compiler, a comprehensive set of utilities and libraries, and a C language compiler. Liquid immersion

cooling brings electronic components in direct contact with an inert fluorocarbon. Three-dimensional pluggable modules contribute to efficient maintenance. Cray Research. Circle 614.

Electrophoresis Cells

Each Little Band-It cell is made from a solid block of acrylic. Standard wire electrodes are replaced with platinum foil. All electrical connections are isolated from corrosive buffers. There is a built-in black stage. The well can be viewed during loading and bands may be clearly seen under ultraviolet light. It features a casting tray with fluorescent markings. Gels are cast outside the unit in a patented apparatus. Gel trays come in full and half sizes. Vanguard International. Circle 611.

Pixel-for-Pixel Screen Image Plots

The Color Image Processor (CIP) is combined with the Colorscan 800 ink-jet color plotter to create a color-imaging system. Screen images are sent to the CIP in seconds while the user continues work. In less than 5 minutes, the plot is complete. Up to four work stations may share the color-imaging system. Features include selectable black-white field reversal, limited-color mode, and accentuated black. The CIP formats the data to drive the plotter; thus, it eliminates the need for graphics software, device drivers, communications devices, or raster controllers. Any application that requires plotting in color with full spectral capability is facilitated by this system. Benson. Circle 600.

Literature

Chemiluminescence Generation is a review with 16 references to applications of this methodology. Turner Designs. Circle 607.

IBM PC Enhancement is a handbook for scientists and engineers to enable them to fully realize the potential of their laboratory computers. CyberResearch. Circle 608.

Fast Fourier Transform Package for IBM PC announces the FFT87 Version 4.0 that will transform a 256-element complex array in about one-half second. Rapid Imaging Software. Circle 609.

Test Tubes describes more than sizes and styles of graduated, printed, and labeled containers for laboratory applications. Sarstedt. Circle 610.

PRODUCTS AND MATERIALS

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