

# New Products

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## Gadolinium-153 Sources

Amersham Corporation is now producing its own gadolinium-153 sources for use in dual-photon bone mineral analyzers to aid in the diagnosis of osteoporosis. These sources will complement Amersham's existing range of sources for bone mineral analysis. Sources are available with 1 Ci loadings in Amersham's TIG welded X1040 capsule, which is uniquely designed to minimize self-absorption losses and maximize output. The 1 Ci gadolinium-153 sources in the Amersham capsule is listed with the USNRC under model number GDC.CY1 and can be loaded into all commercially available dual-photon bone mineral analyzers.—*Amersham Corporation, Industrial Products Division, 2636 S. Clearbrook Dr., Arlington Heights, IL 60005.*

Circle Reader Service No. 30



## LA-450 Laser Archive Unit

The LA-450 Laser Archive unit from International Imaging provides a permanent storage medium for video medical images. Over 10,000 full-frame high resolution black and white images can be captured on a single replaceable 8" laser disc, providing significant time and cost savings over magnetic tape storage. Access to the images is achieved in 500 msec, with variable playback speeds of up to 20 frames per second, facilitating prompt image location. Hard copy reference output to a film camera or paper printer is standard.

The LA-450 unit operates in real-time for simultaneous viewing and recording and includes a foot pedal-activated record switch allowing hands-free operation during ultrasound procedures. Easy to install and operate, the LA-450 hooks up in minutes and carries a full one-year warranty.—*International Imaging, P.O. Box 2519, Winter Park, FL 32790.*

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## PET Scanner

The ECAT Scanner is a complete PET imaging system inclusive of scanning unit (gantry and patient bed), detectors, data acquisition and processing, electronics, computer, operator console, software, and documentation. The ECAT Scanner offers a wide range of imaging and user-oriented benefits. These include: superior image quality with excellent delineation of small structures and uniform quantification over the entire field of view; three-dimensional total organ imaging; and dynamic and gated imaging with functional time activity measurements of bolus and first-pass protocols.

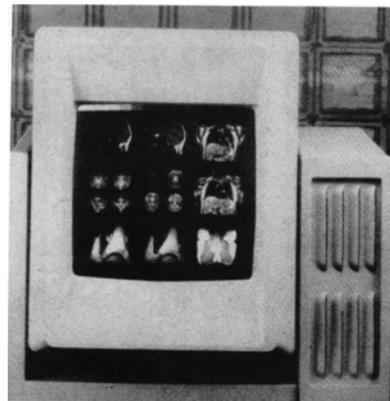
A question and answer menu format, convenient controls for patient positioning and organ localization, and field-tested software for the technician operator all allow for ease of operation. The system's high sensitivity also minimizes imaging times, thus improving patient comfort and reducing motion artifacts.

The ECAT Scanner is capable of better than 5-mm system resolution, acquires 15 true image planes, and achieves high sensitivity, high signal-to-noise ratio and high count rate throughout. Complemented by a CTI radioisotope delivery system, the ECAT features: four extracted beams with the capability to produce two radionuclides simultaneously; a compact removable shield (eliminating special room shielding); automated targetry and radiochemistry systems, small size (the cyclotron and shielding occupies roughly a 3.5-meter-cubed area); automatic processor-controlled operator interactions; and yields carbon-11, nitrogen-13, oxygen-15, and fluorine-18, exceeding requirements of routine PET studies.—*Siemens Medical Systems, Inc., Nuclear Medicine Division, 186 Wood Avenue South, Iselin, NJ 98830.*

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## Photographic-Quality CRT Display

Matrix Instruments has introduced a new high-resolution CRT and digital display system with a 2048 × 2048-pixel image approaching the visual quality of the finest photography on a printed page. The new Matrix Mega-Pixel 4 has a 14-inch diagonal viewing surface and can display multiple images simultaneously.



Prior to transmitting images or filming them, an onboard microprocessor allows the operator to format on the screen, and allows the radiologist to examine and select images. The new Matrix Tele-Imaging personal workstations, which transmit high resolution digital images over standard phone lines, mesh perfectly with the new display system as a first step towards the forthcoming all-digital radiology department.

Because Mega-Pixel 4 allows formatting on the screen, along with windowing and other functions, all images can be studied prior to filming. After the physician selects images from one or more modalities and they are formatted, the images can then be hard copied on film using a Matrix multi-format film recorder for archiving, saving both time and film.

One key to the resolution of the new display system is its effective bandwidth. The bandwidth of the proprietary multi-beam CRT and video components has been extended to an effective 400 Mhz (four to eight times the bandwidth of the conventional display). A unique memory architecture extends the bandwidth of the image memory to match the speed of the video circuits.

Gray scale is controlled by a programmable memory with up to 256 shades available. The result is a display with extremely high resolution and dynamic range for unsurpassed medical image display.—*Matrix Instruments, Inc., One Ramland Road, Orangeburg, NY 10962.*

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