

# Breakthrough In Thyroid Testing

Announcing

Trademark  
**TRIOSORB**  
T-3 DIAGNOSTIC KIT.

An in vitro test unmatched in accuracy, speed & convenience

Triosorb represents a major breakthrough in thyroid testing because it replaces the red blood cells in the test. Triosorb sponge is a polyurethane foam in which is embedded a pre-measured ion exchange resin.

**ACCURACY:** Because only serum is used (instead of red blood cells) and there are only 3 washings, accuracy is greatly increased. Triosorb also permits accurate evaluation of thyroid function under certain circumstances where other standard methods may not be applicable. For example, it may be used following the administration of iodine-containing compounds or during the course of treatment with thyroid medications.

**SPEED:** Triosorb sponge can be washed quickly. The 3 washes can be completed in one or two minutes—compared to the red cell technique requiring 5 time-consuming washes and centrifugations. Triosorb does not require an incubator or shaker.

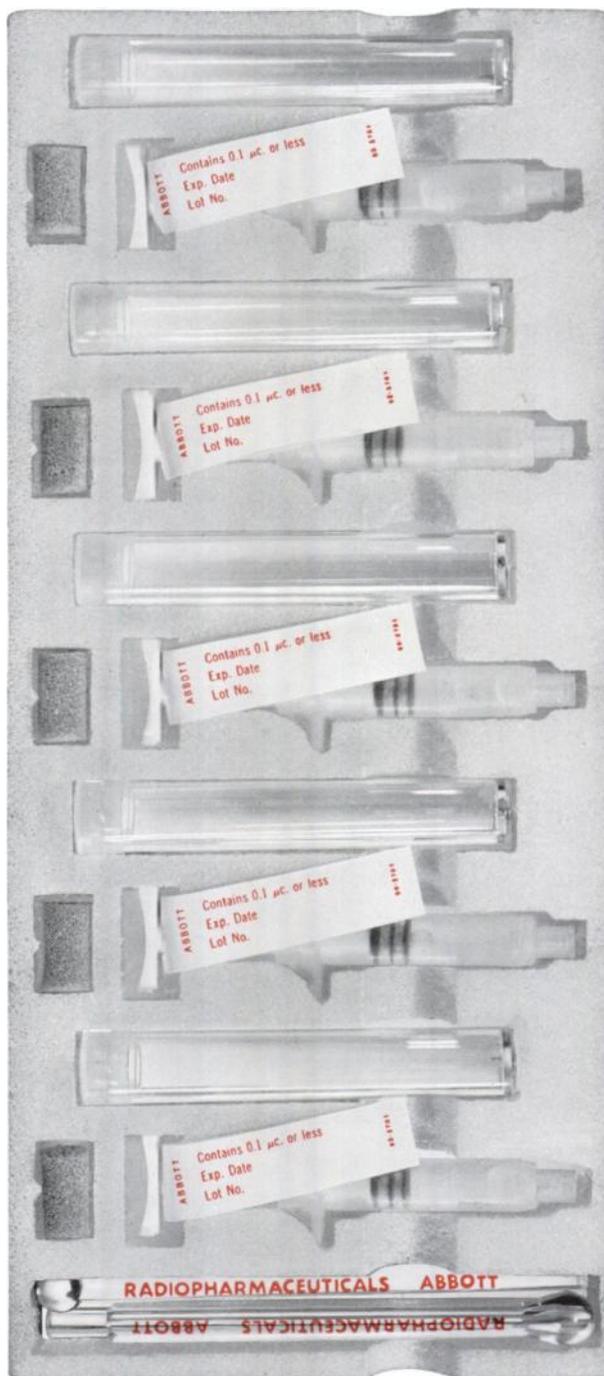
**CONVENIENCE:** It is in a disposable kit form ready for immediate use at room temperature (25° C.). Correction factors are available if room temperature varies.

**SAFETY:** No dilution or pipetting of radioactive material is necessary. Since the patient receives no radioactive material, the test can be used in children, pregnant women, or in adults who fear ingestion of even tracer doses of radioactivity. Each syringe contains only 0.1  $\mu$ c. or less of  $I^{131}$  activity—an amount so minute that no special licensing is required by the AEC for its use.

**FLEXIBILITY:** The test does not require the presence of the patient for the determination of the radioactivity. The serums can be frozen and saved until a sufficient number has been collected to run a rack full of tubes at one time.

**SUPPLIED:** Each Triosorb Diagnostic Kit is made up of two trays (such as the one pictured to the right) containing: 10 syringes filled with Triomet®-131 [Iodine-131], 10 Triosorb Sponges, 10 plastic test tubes with caps, 2 plungers, and 2 aspirator tips.

Triosorb is available to all physicians, hospitals and clinical laboratories—AEC licensing is not required.



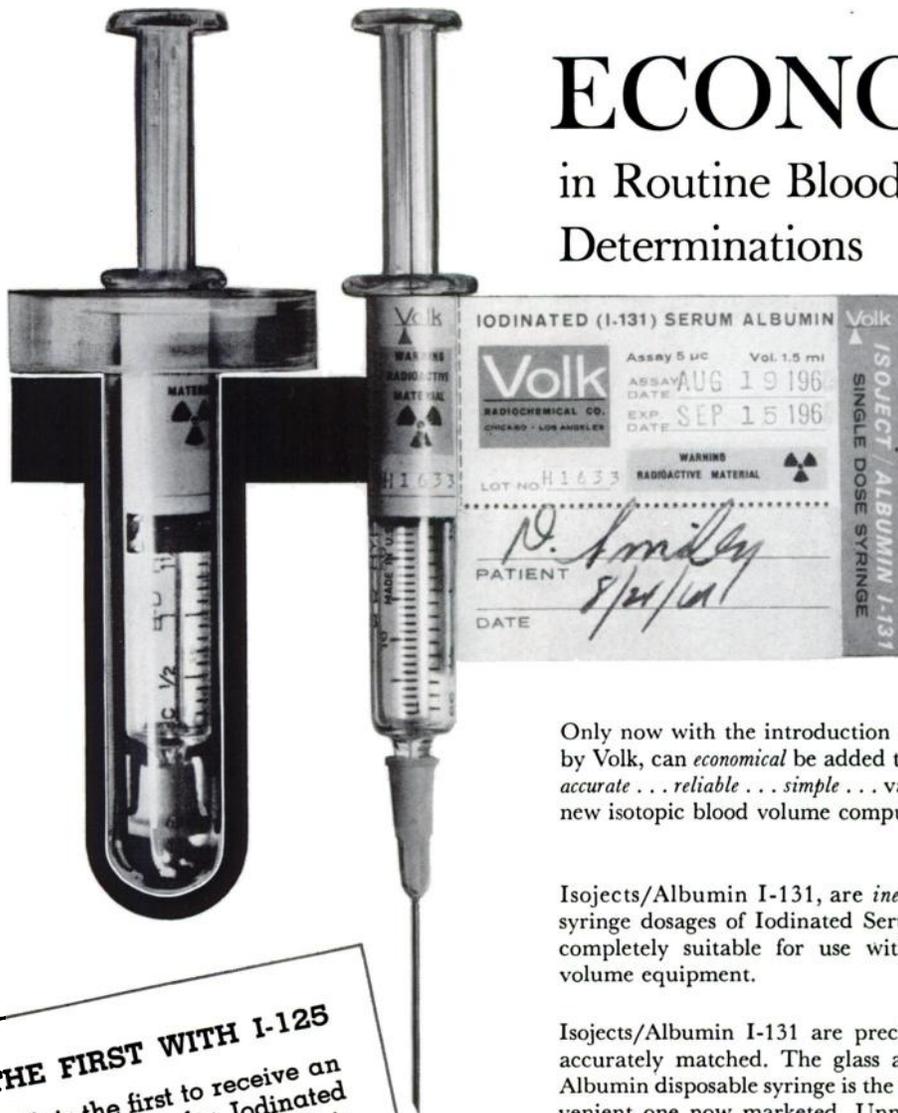
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PIONEERS IN RADIO-PHARMACEUTICALS  
North Chicago, Illinois / Oak Ridge, Tennessee

\*Patent applied for.

305227

# ECONOMY

in Routine Blood Volume  
Determinations



Only now with the introduction of Isojects/Albumin by Volk, can *economical* be added to the terms: *fast . . . accurate . . . reliable . . . simple . . .* validly describing the new isotopic blood volume computer technic.

Isojects/Albumin I-131, are *inexpensive* individual syringe dosages of Iodinated Serum Albumin I-131, completely suitable for use with automatic blood volume equipment.

Isojects/Albumin I-131 are precisely measured and accurately matched. The glass and rubber Isoject/Albumin disposable syringe is the safest and most convenient one now marketed. Unnecessarily elaborate packaging has been eliminated to make possible a unit dosage cost of less than \$1.50 per measurement with volume purchasing.

Available in 5 and 10 microcurie potencies. All necessary adjuncts—disposable needles, well-crystal guard tubes, blood sample tubes, and Isoject Adaptors for any machine—are furnished by Volk.

For further details or to order: Call Collect

## THE FIRST WITH I-125

Volk is the first to receive an N.I.H. license for Iodinated Serum Albumin I-125. This 60-day half-lived, low radiation dose, product is also available in Isoject/Albumin form and usable in modified automatic equipment.

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# Five Radiation Lab Functions You Can Perform Best with a **GAMMASCOPE<sup>®</sup>**



## **1. Using mixed tracers in absorption studies**

The 100-channel Gammascope will function as a dual-peak spectrometer, clearly displaying the energy peaks of both elements on the visual and printed spectrum. Both elements are counted automatically and simultaneously.

## **2. Working with short-lived isotopes**

Half-lives of less than a day are problems for scanning devices, but the Gammascope, with fast automatic data accumulation, can complete a spectrum analysis in far less time than it takes to materially affect the isotope's activity.

## **3. Determining isotope purity**

Monitoring samples to determine their purity or to check the specifications of matched samples are other laboratory processes that can be completed quickly and accurately with the greater resolution, counting speed and readout efficiency of the Gammascope.

## **4. Using several isotopes in succession**

It is a simple matter to recalibrate the Gammascope for each new element used. Simply set the adjustable visual window to intensify the primary energy peak. The window adjusts to any width (number of channels) and any location on the energy spectrum.

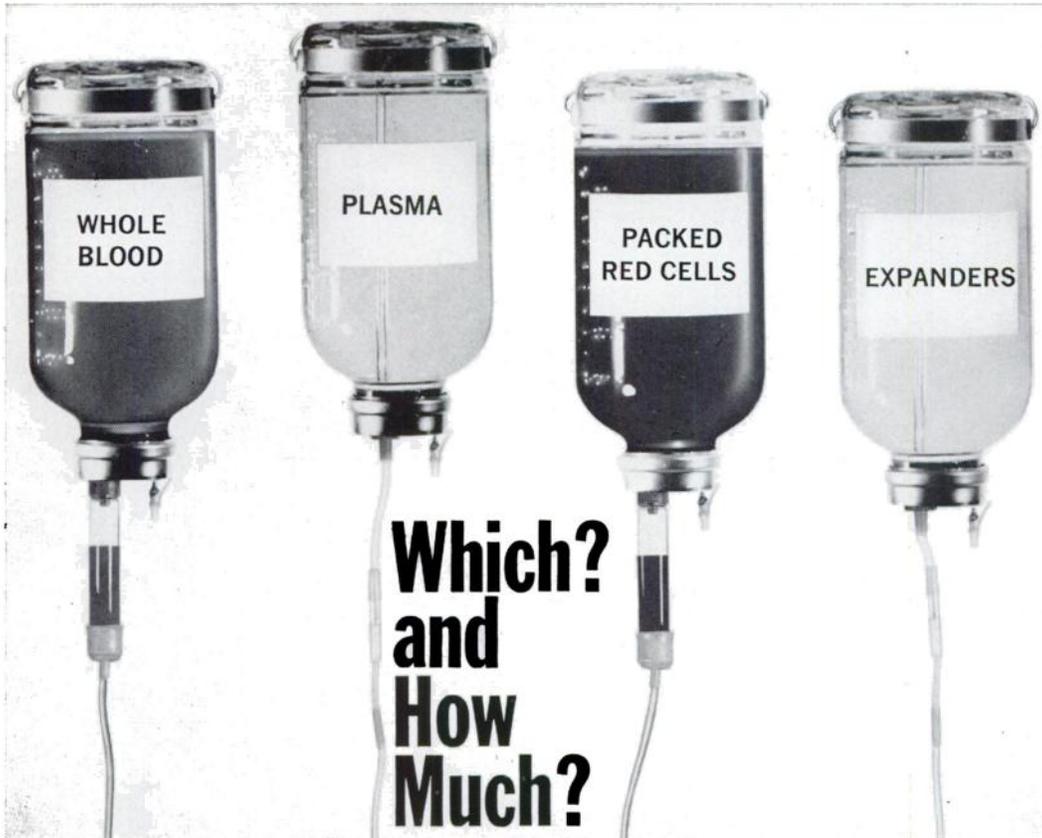
## **5. Making diagnostic and experimental spectrum analyses**

In whole body counts, uptake studies and other biophysical radiation applications, the Gammascope will complete a spectrum analysis in a fraction of the time a scanning spectrometer takes. All pulses are stored in the 100-channel magnetic core memory while the cathode-ray tube simultaneously displays the build-up of the spectrum. To make a complete analysis you calibrate in one step, start the analysis and the automatic accumulation takes over. The completed count — determined by the pre-set live timer — can be printed out on the digital printer.

The Gammascope pulse analysis system includes built-in linear amplifier, high voltage supply, visual display and external printer — \$5990 (export slightly higher).

For complete data contact the nearest TMC office or Technical Measurement Corporation, 447 Washington Avenue, North Haven, Connecticut.





**In replacement therapy... VOLĒMETRON will help you decide**

Aided by accurate blood volume determination with VOLĒMETRON, and hematocrit data, your choice of whole blood, plasma, packed red cells, or expander enables optimum replacement therapy to meet the patient's specific needs. Precise, easily obtained blood volume information can help avoid the hazards of under- or overtransfusion—or unnecessary transfusion. Blood volume data can also aid in diagnosis and management of hypervolemia, hypovolemia, fluid translocation and loss. With VOLĒMETRON, blood volume determinations can be obtained *at the bedside, in the O.R., in the laboratory*—quickly, easily, accurately. VOLĒMETRON is attested by over 30 clinical papers, and is in clinical use in hundreds of hospitals throughout the world.

For further information and literature, or to arrange a demonstration of VOLĒMETRON in your hospital, contact Ames Atomium, Inc., 575 Middlesex Turnpike, Billerica, Massachusetts 01865.

**VOLĒMETRON<sup>®</sup>**

**ORIGINAL AUTOMATIC ELECTRONIC BLOOD VOLUME COMPUTER**

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73264





## MEDICAL SCANNER MODEL CS 500

In nuclear medicine, the CS 500 Medical Scanner is a valuable clinical tool for organ or tumor visualization, providing a powerful adjunct to the diagnostic skills of the physician.

The CS 500 features photorecording on X-ray film and teledeltos paper recording to display the distribution and concentration of isotopic labeled compounds localized in selected organs and areas of the human body. Studies utilizing the most recent scanning techniques with newly developed radioactive compounds may be done accurately and quickly.

Truly significant differences are revealed, even at low count rates, by the electronic elimination of background, and the expansion of the remaining data photographically over the entire contrast curve.

Mechanically, the CS 500 is simple to operate. Either a unidirectional or a bi-directional mode may be used to direct the scanning movement of the probe in the horizontal plane. The height of this scanning plane above the subject is push-button controlled.

For *PENETRATING ANALYSIS*, the clinician can have confidence in the CS 500 Medical Scanner because of its proven performance in scores of leading medical institutions throughout North America. Service available through all Baird-Atomic sales offices, in the U.S. and abroad.

Write to the Atomic Instrument Department for brochure CS 500.

Scientists: Investigate challenging opportunities with Baird/Atomic. An Equal Opportunity Employer.

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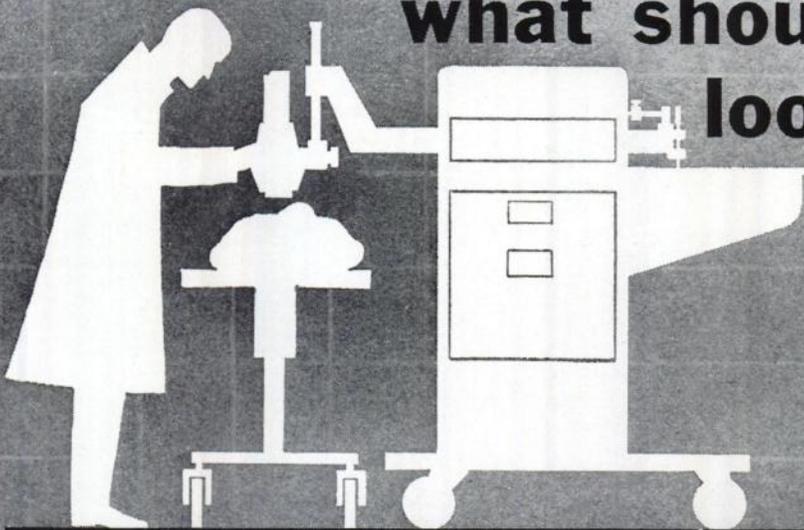
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Subsidiaries:  
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what should you  
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nuclear

**Magna Scanner**

the *versatile scanner* / the *proven scanner*

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PICKER X-RAY CORPORATION

WHITE PLAINS, NEW YORK



**"Of particular value"<sup>1</sup>  
in delicate radiography**

Excellent visualization, minimal discomfort—these are the features of Renografin (Squibb Methylglucamine Diatrizoate Injection U.S.P.) in cerebral angiography.<sup>1,2</sup> It produced similarly impressive results in abdominal aortography.<sup>4,5</sup> Most reactions reported were of a transient nature.<sup>1,2,5</sup>

A "superior contrast medium"<sup>6</sup> in intravenous urography. In three large series, diagnostic films were produced in over 90% of patients of all ages. No serious reaction occurred and minor side effects were few.<sup>3,6,7</sup>

# RENOGRAFIN<sup>®</sup>

## SQUIBB METHYLGLUCAMINE DIATRIZOATE INJECTION U.S.P.

**Dosage and Administration for Excretion Urography:** Renografin-76 (methylglucamine diatrizoate)—20 cc., I.V., (adults), and 4-16 cc., I.V. or I.M., (children). Renografin-60 (methylglucamine diatrizoate)—25 cc., I.V., (adults), and 5-20 cc., I.V. or I.M., (children). NOTE: Give I.V. injection slowly.

**Supply:** Renografin-76 (Methylglucamine Diatrizoate Injection U.S.P.) providing 76% methylglucamine diatrizoate—20 cc. ampuls and vials. Renografin-60 (Methylglucamine Diatrizoate Injection U.S.P.) providing 60% methylglucamine diatrizoate—25 cc. ampuls and vials; 100 cc. bottles. All ampul packages contain 1 cc. ampuls (all vials contain sufficient excess) for testing.

**Side effects:** Flushing, nausea, and vomiting; transient pain on injection. **Precautions:** I.V. test dose may be given. Stop examination upon evidence of allergy. In rare instances, anaphylactoid reactions may occur. Use with caution in severely debilitated patients and in cyanotic

infants, patients with chronic pulmonary emphysema, advanced arteriosclerosis, severe hypertension, cardiac decompensation, and recent cerebral embolism or thrombosis.

For full information, see your Squibb Product Reference or Product Brief.

**References:** (1) Doehner, G. A., and Brugger, G. E.: *New York J. Med.* 60:4022, 1960. (2) Balkissoon, B., et al.: *J. A. M. A.* 169:676, 1959. (3) Mathews, P. W., Jr.: *South. M. J.* 52:170, 1959. (4) Agnew, C. H., and Cooley, R. N.: *Texas State J. Med.* 55:945, 1959. (5) Greenspan, R. H., et al.: *Am. J. Roentgenol.* 83:1034, 1960. (6) Utz, D. C., and Thompson, G. J.: *Proc. Staff Meet. Mayo Clinic* 33:75, 1958. (7) Orr, L. M., et al.: *J. A. M. A.* 169:1156, 1959.

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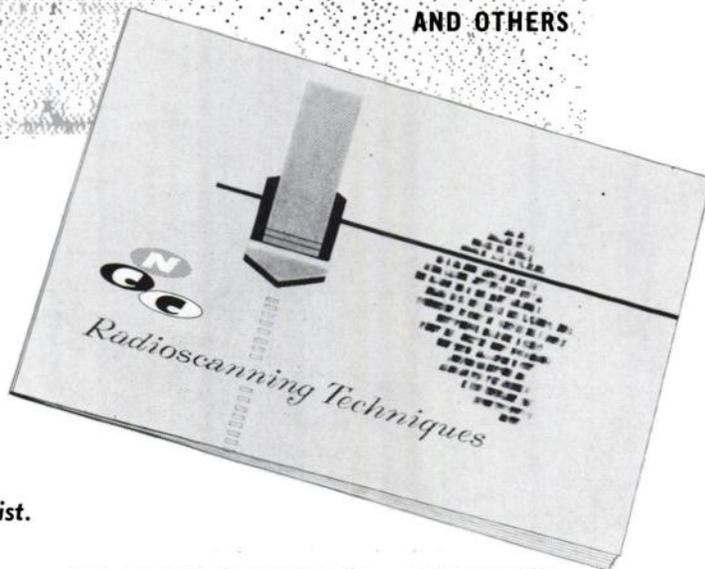
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BONE	Sr <sup>85</sup> Cl <sub>2</sub>
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Booth No. 7 — Annual Meeting, Society of Nuclear Medicine, Berkeley, California — June 17-20, 1964

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# DETECTOR POSITIONING STAND



The Ohio-Nuclear, Inc. Model 72B Detector Positioning Stands hold scintillation detectors and shields at any height or angle relative to a seated or prone patient. They are especially convenient for thyroid and renal uptake studies.

These stands are available in both one- and two-detector models. The two-detector model has two separate columns on the same base so that each detector may be positioned completely independently.

The Model 72B Stands are built for detectors with crystals two inches in diameter or less and one inch of lead shielding. The shield shown is eight inches long and accepts interchangeable collimators.

The vertical height of the detector is changed manually by lifting or pushing down on the arm which supports the shield. The shield and supporting assembly is counterbalanced.

In addition to vertical and horizontal movement, the detector may be rotated about three different axis to obtain the desired angle relative to the patient.

The low base is mounted on rubber-tired, ball-bearing casters and is weighted to assure stability with the shield in any position.

Dimensions and specifications: overall height 67 inches; base height 7 inches; detector height variable 27 to 53 inches above the floor; detector extends to 35 inches from column; base dimensions 27 x 34 inches; rubber bumpers on corners of base; construction of anodized aluminum, stainless steel, and chrome plated steel.

Our usual one year unconditional warranty applies. Prompt shipment from stock. Write or telephone collect for additional information (Area code 216 Telephone 621-8477).

## **OHIO — NUCLEAR, INC.**

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# universal II scintiscanner

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Model ST-300, 3 inch Scintimeter, complete with lead shielding and four focusing collimators, provides minimum background count and maximum resolution.

*Variable Scan Speed and Adjustable Spacing*

The only scanner that accepts both 2 and 3 inch detectors for scanning in any plane, Curtis Nuclear's Model SN-250 Scintiscanner is designed to scan the brain, heart, liver, kidneys and other vital organs with no discomfort to the patient. A one operator instrument, its modular construction permits its use with a wide selection of detectors, collimators, and counting and recording instruments. Features includes "joy stick" positioning, no large "over-the-patient" structure, illuminated outline of scan area, and universal head assembly that allows a multitude of tests in addition to scanning.

When connected with the dual, transistorized Photoscanner, Model PS 123T, the scanner provides a choice of either continuous film exposure (rate) or periodic exposure (integral).

*Write for complete information and specifications to . . .*

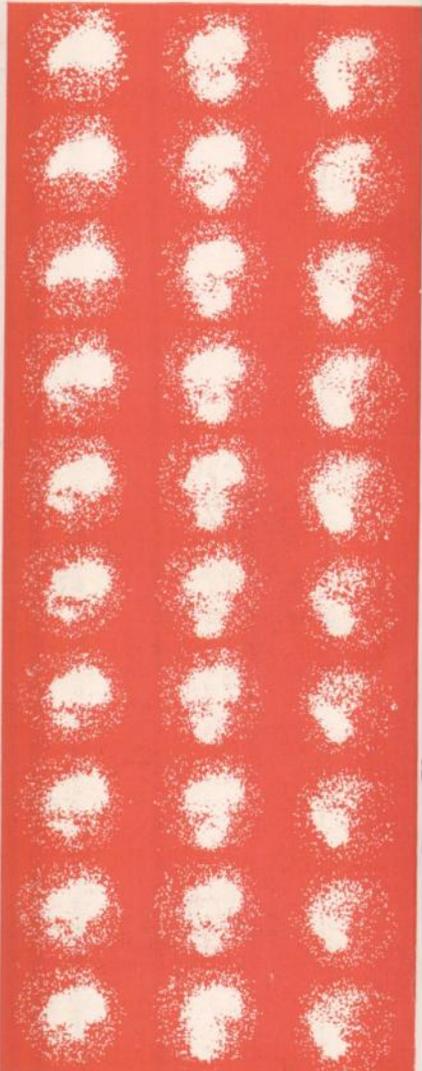
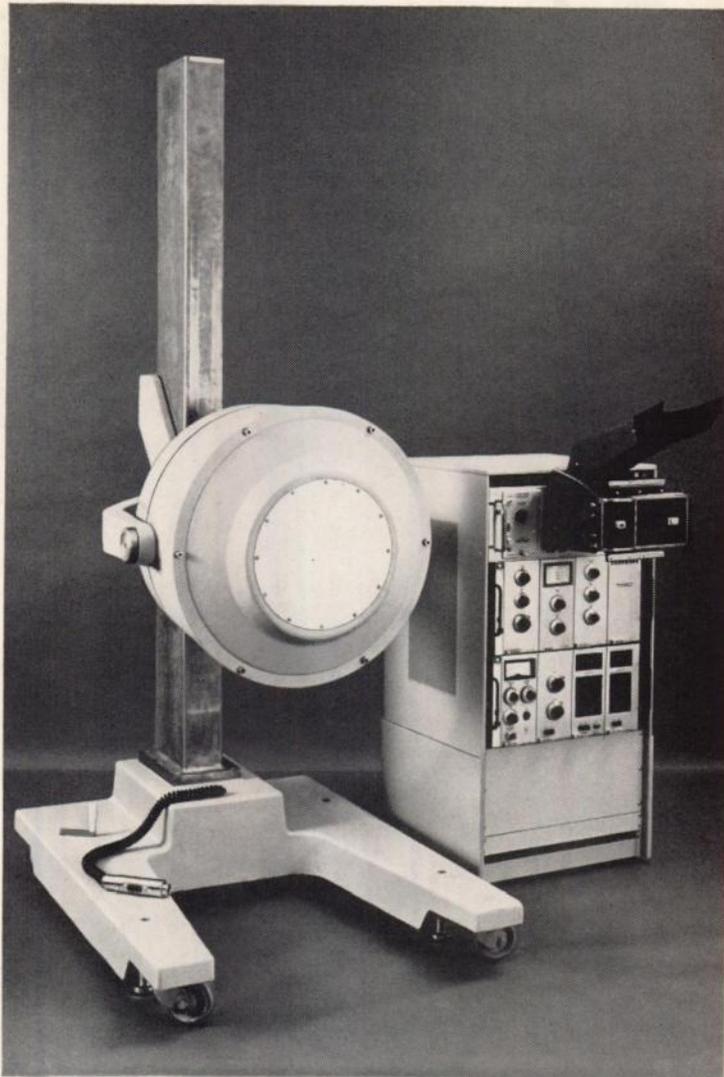


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The PHO/GAMMA Scintillation Camera rapidly and with great sensitivity visualizes human and animal organs containing isotope-

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Completed images of radioisotope distribution in organs or body areas can be produced and recorded at speeds of from one to fifteen minutes, depending upon the isotope administered and the region under examination. These speeds are in the range of three to ten times faster than those possible with photo-mechanical isotope scanners.

The instrument also produces

rapid-sequence, stop-motion images of dynamic processes. These stop-motion pictures are, in effect, "isotope movies" which accurately depict the flow of labelled compounds into and out of an organ. Such information provides the investigator and diagnostician with valuable insights into body processes.

Please consult your Nuclear-Chicago sales engineer or write for complete information. NUC-D-4-218



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