



This sponge

By eliminating the disadvantages of earlier methods, the Triosorb Sponge has achieved a real breakthrough in thyroid testing. **It is an in vitro test unmatched in accuracy, speed and convenience.**

Accuracy: Because factors such as red blood cells and exogenous iodine have been eliminated from consideration in the Triosorb Test, it is unmatched in accuracy.

Speed: With only 3 washes and no need for double pipettings, shakers, or incubators, the Triosorb Test can be

revolutionized thyroid testing!

more rapidly performed than any other T-3 test.

Convenience: Triosorb is in a disposable kit ready for immediate use at room temperature, making it the simplest and most convenient thyroid function test to perform.

McAdams* reported that "The resin sponge (Triosorb) technique is superior to the erythrocyte method for performing the I^{131} T3 test in terms of simplicity, convenience and elimination of errors characteristic of the erythrocyte procedure."

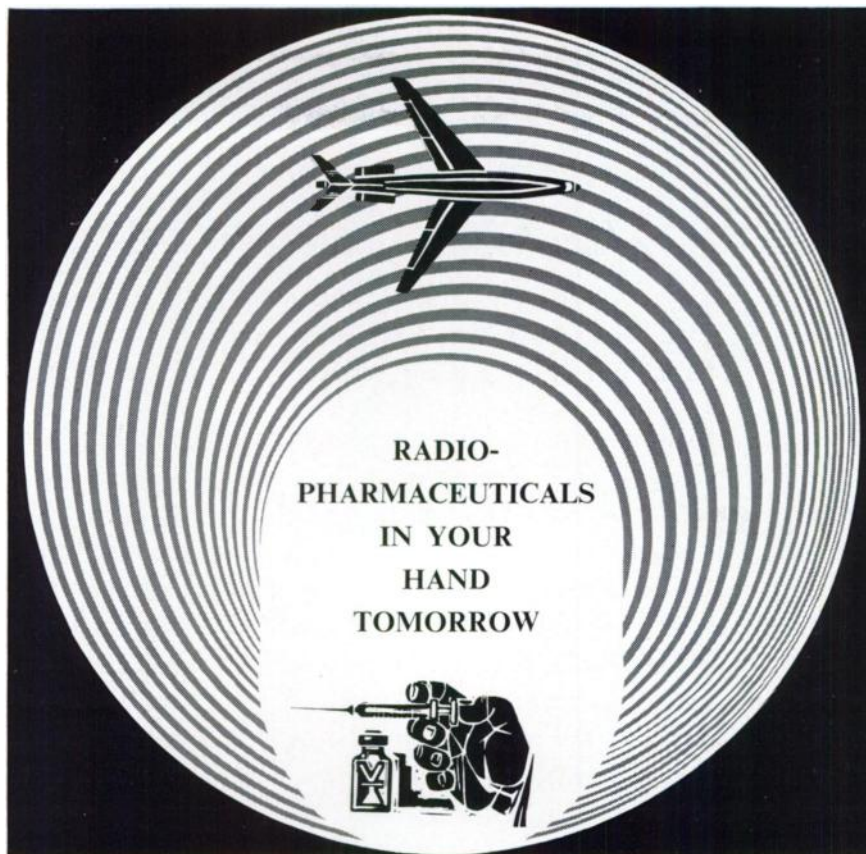
Triosorb is available to all doctors, hospitals and clinical laboratories—AEC licensing is not required. Because Triosorb will enable far more screenings to be performed, this procedure may soon become as standard as today's blood counts and urinalyses.

501202



*McAdams, G. B. and Reinfrank, R. F., Jrnl. Nuclear Med., 5:112, Feb., 1964.

TRIOSORB[®]
T-3 DIAGNOSTIC KIT
ABBOTT LABORATORIES NORTH CHICAGO, ILL.



The Volk Radiochemical Company has been producing radiopharmaceuticals and radiochemicals for human and research use for the past ten years. This is our only business. Continued technological improvements and innovations have been constant goals as exemplified by our pioneering production of Iodine-125 as a useful medical isotope and our introduction of the "Silver Saddle" which removes free iodide from iodinated organic compounds such as Hippuran.

Twenty separate individual isotopic dose products are available in standard and special potencies.

CONVENIENT—to the world's busiest airport (Chicago's O'Hare) insures delivery tomorrow via Air Express to any one of 21,000 U. S. cities.

Collect call ordering to our Skokie, Illinois laboratory (area code 312 673-3760)		or Burbank, California laboratory (area code 213 849-6023) assures you that your orders are handled as specified.
--	--	---

Write for the 1965 Volk Radiomedicines catalog.



RADIOCHEMICAL COMPANY

CHICAGO—8260 Elmwood Ave., Skokie, Ill.
LOS ANGELES—803 N. Lake St., Burbank, Calif.
WASHINGTON—P.O. Box 335, Silver Spring, Md.
NEW YORK—P.O. Box 345, New York, N. Y.

The acceptance of the original Gammascopie in a wide variety of applications has prompted the development of an even more versatile system — the Gammascopie II. The basic concept of a low cost, self-contained 100-channel Pulse Height Analyzer has been retained. New circuitry, housed in a more compact cabinet, now adds inputs for multiscaling and Mössbauer effect studies. New output circuits permit readout on virtually every type of analog and digital equipment. The Gammascopie II truly offers the physicist, chemist or biologist an instrument equally useful for class room demonstrations or exacting experiments. (Gammascopie 101 is still available for applications where its features are especially useful.)

4 Switch Selected Operating Modes

100-channel analysis — this provides a high resolution spectrum analysis of charged particles. Scale expansion provides resolution equivalent to 800 channels for storage of a selectable portion of the spectrum. In this capacity the Gammascopie will effectively replace the single-channel spectrometer in nuclear medicine, radio-chemistry, and nuclear physics research.

Single-channel analysis — window controls on the Gammascopie permit selection of an energy range of interest intensified on the multi-channel spectrum display. With controls set for the range of interest, the instrument provides pulses in that range for counting on an external scaler. Pulses selected by the window can also be used for counting in the multi-scaler mode, or for sampling of the velocity signal in Mössbauer studies.

Multiscaling — the Gammascopie provides 100 channels of multiscaling with 8 selectable dwell times from 0.1 to 1000 milliseconds. The single-channel window selects pulses of the desired energy range, which are then automatically stored in successive channels corresponding to a preset time interval. Multiscaling is particularly useful in half-life studies of short-lived isotopes and for investigation of Mössbauer effects.

Mössbauer Analysis — The Gammascopie is equipped with an input for an analog signal. In addition, in the Mössbauer mode pulses from the detector can be fed to the single-channel analyzer. The output is used to sample the velocity signal by the analog to digital conversion circuitry, thus providing a count in the channel corresponding to the instantaneous amplitude of the velocity. This mode of operation eliminates the necessity for precise timing by the counting channels and the Mössbauer drive, thus greatly simplifying demonstration of Mössbauer effects.

Specifications

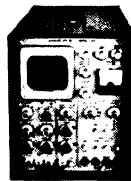
Inputs: high level — 0-10 volts (0-100 volts optional); low-level — up to 50 mv. at max gain, polarity negative
Output: compatible with x-y plotter, digital printers, typewriter, paper tape punch, external visual displays, and IBM compatible magnetic tape system.
Memory capacity: 10⁵-1 counts per channel
Mössbauer input: ± 2 volts
Displays: Live: during data accumulation. Static: stored data
Preset Time: live times from 0.1 to 400 minutes and infinity

For full details on the GAMMASCOPE II, contact your nearest TMC office or write Technical Measurement Corp., 441 Washington Avenue, North Haven, Connecticut.



TECHNICAL MEASUREMENT CORPORATION
 441 Washington Avenue, North Haven, Conn.

NOW



Gammascopie II[®]

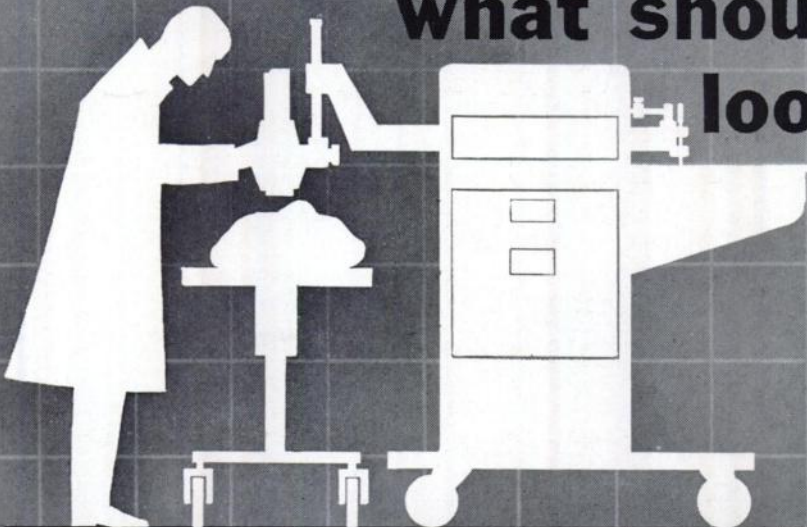
WITH 4 OPERATING MODES

- 100 channel pulse height analysis
- Simultaneous single-channel pulse height analysis
- Multiscaling • Mössbauer analysis



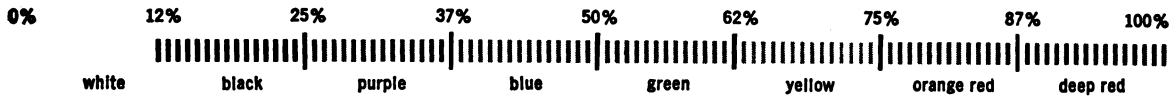
when investing in a scintillation scanner

what should you
look for?

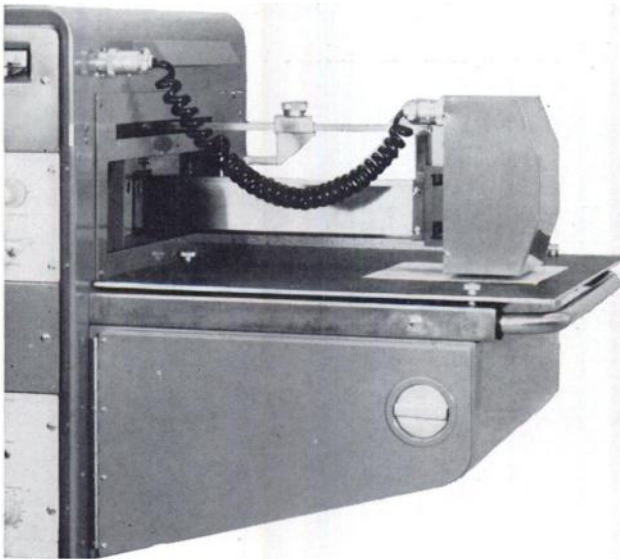


among other things...

color printout



Spectrum of eight-color ribbon showing percentage of full scale range at which change in printing color occurs.



Only on the Picker Magnascanner® will you find a color printing system which serves to differentiate areas on the dot scan by **color** as well as dot **density**.

Since semi-quantitative data can be read from the colorscan, this mechanical printout supplements and enhances the information contained in the parallel photoscan.

PICKER
nuclear

Magna Scanner®

the versatile scanner / the proven scanner

PICKER NUCLEAR

DIVISION

PICKER X-RAY CORPORATION
WHITE PLAINS, NEW YORK

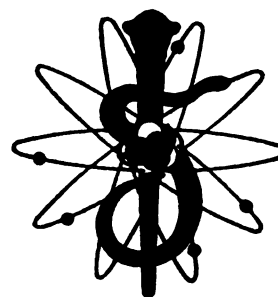
A Valuable Addition To Your Professional Library

Journal of

NUCLEAR



*Official Publication
Society of Nuclear Medicine*



AN IMPORTANT NEW JOURNAL

featuring

Original articles in clinical medicine, basic and clinical medical research, physics and chemistry dealing with the use of isotopes in humans, and articles on related subjects. The latter includes dosimetry, instrumentation, protection, techniques, biologic effects contributing to the use or effects of isotopes in clinical medicine or the clinical effects of ionizing radiation.

George E. Thoma, M.D., St. Louis—*Editor*

G. O. Broun, Jr., M.D., St. Louis, Titus C. Evans, Ph.D., Iowa City,

Neil Wald, M.D., Pittsburgh, Eugene L. Saenger, M.D., Cincinnati—*Associate Editors*

The Journal of NUCLEAR MEDICINE

333 North Michigan Avenue, Chicago, Illinois 60601

\$20.00 per year, U.S. \$21.00 Foreign

Name.....

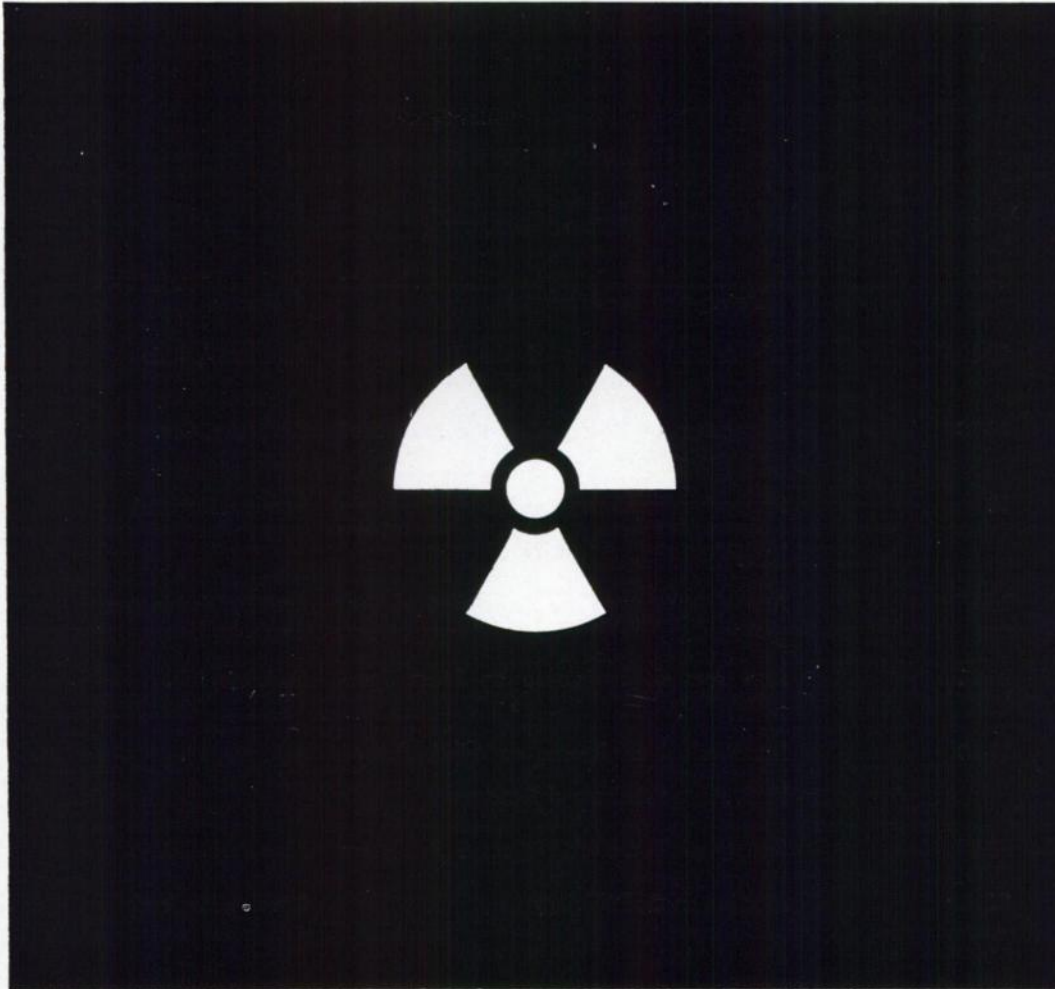
Address.....

City..... State..... Zip Code.....

Please remit by check or money order.

**Published
Monthly**





 **MEDOTOPES[®]**
SQUIBB RADIOPHARMACEUTICALS

Medotopes reflect the latest developments in nuclear medicine. All provide the utmost in safety and convenience. All have unique packaging safeguards so that direct contact is never required. Exclusive lead shield enclosures are fitted with bottle caps that unscrew automatically. Saf-Tag[®] vials and bottles are carefully encased and double protected by transparent, shatterproof plastic coatings, and shipping cartons have convenient "pull-tab" openers. And, each preparation is custom-handled, each delivery custom-routed by Squibb Traffic Service. Access to three major airports expedites shipment.

Squibb Radiopharmaceuticals are available to the AEC-licensed physician. For full information, write to Professional Service Dept., Squibb, 745 Fifth Avenue, New York 22, N. Y.

SQUIBB
Squibb Quality—the Priceless Ingredient
SQUIBB DIVISION **Olin**



HARSHAW NaI (Tl) CRYSTALS

pace Health Physics developments



IN WHOLE BODY COUNTING

- Crystals to 11½" Diameter
- Measured background spectrum
- Resolution and Stability Performance Guaranteed

IN SCANNING

- Best energy resolution ■ Multi-Crystal Mosaics for Dynamic Scanning Small Detectors
- Large Diameter Crystals for Pinhole Camera Techniques

IN GAMMA DOSE RATE DETECTORS

- New Development in Scintillator-Photoconductor Module for Dose Rate Measurement
- High Sensitivity ■ Fast Response Time

IN THERMOLUMINESCENT DOSIMETRY

- Activated LiF Offering ■ High Sensitivity
- Reproducibility ■ Linear Energy Response

IN CHARGED PARTICLE DETECTION

- Surface Barrier Diodes offering minimum size for Probe Devices
- Li Drift Detectors for Beta Detection

Detailed information can be obtained from:

Crystal-Solid State Division
THE HARSHAW CHEMICAL COMPANY
 1945 East 87th Street • Cleveland, Ohio 44106 • Telephone 216 721-8300
 Utrecht, Netherlands—Contact Harshaw-Van Der Hoorn N. V.
 Frankfurt, W. Germany—Contact Harshaw Chemie GmbH

Advertising Index

Abbott Laboratories North Chicago, Illinois	Inside Front Cover, i
American Collimator Company Oklahoma City, Oklahomaxx
Nuclear-Chicago Des Plaines, Illinois Back Cover
Nuclear Consultants St. Louis, Missouri	Inside Back Cover
Ohio-Nuclear Cleveland, Ohio iii
Picker X-Ray Corporation White Plains, New York x
Squibb, E. R. & Sons New York, New York xi
Technical Measurements North Haven, Connecticut vii
Volk Radiochemical Company Chicago, Illinois v

The Ohio-Nuclear advertisement which appeared on page iii of the February 1965 issue of the Journal was incorrect as to price and delivery date of the merchandise mentioned. For current information, please contact Mr. Don Steel, President, Ohio-Nuclear, Inc., 1275 Fall Avenue, Cleveland, Ohio 44113.

Announcement to Authors Preliminary Notes

Space will be reserved in each issue of THE JOURNAL OF NUCLEAR MEDICINE for the publication of one preliminary note concerning new original work that is an important contribution in Nuclear Medicine.

Selection of the preliminary note shall be on a competitive basis for each issue. One will be selected after careful screening and review by the Editors. Those not selected will be returned immediately to the authors without criticism. Authors may resubmit a rejected or revised preliminary note for consideration for publication in a later issue. The subject material of all rejected manuscripts will be considered confidential.

The text of the manuscript should not exceed 1200 words. Either two illustrations, two tables, or one illustration and one table will be permitted. An additional 400 words of text may be substituted if no tables or illustrations are required. Only the minimum number of references should be cited.

Manuscripts should be mailed to the Editor, Dr. George E. Thoma, St. Louis University Medical Center, 1402 South Grand Blvd., St. Louis, Missouri 63104. They must be received before the first day of the month preceding the publication month of the next issue, *e.g.*, preliminary notes to be considered for the November, 1965 issue must be in the hands of the Editor before October 1, 1965.

NEW BREAKTHROUGHS IN MEDICAL SCANNING CALL FOR NEW

COLLIMATORS

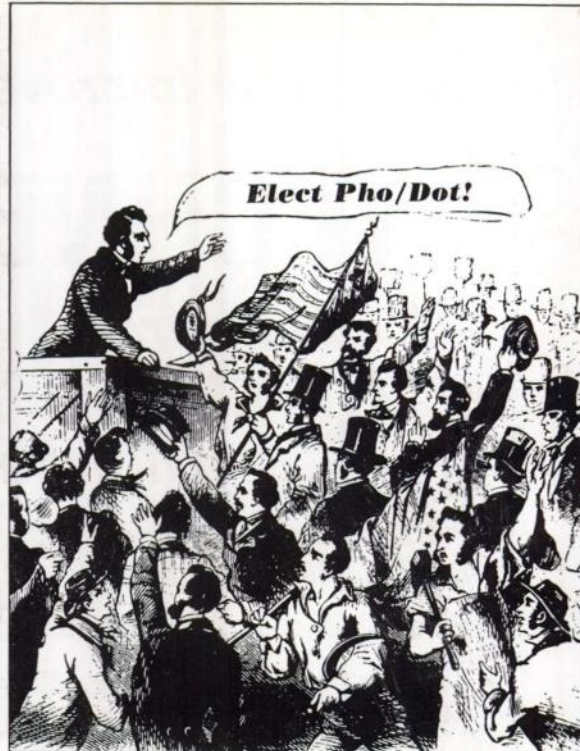
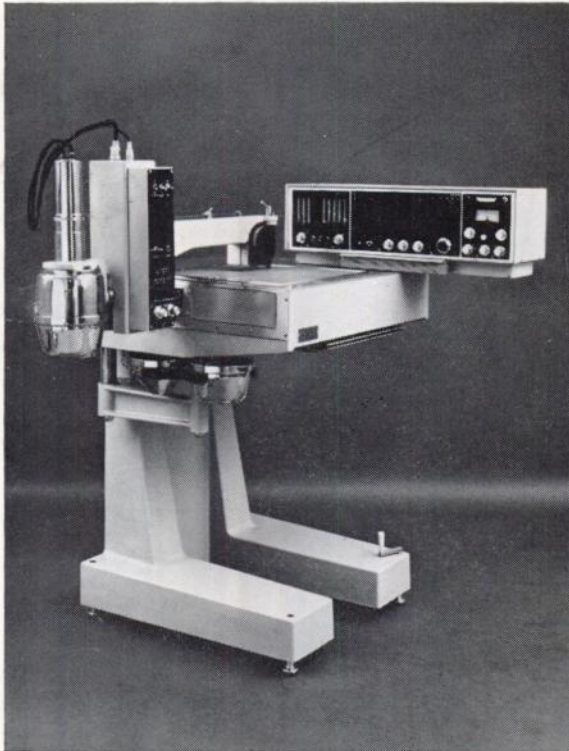
New isotopes and additional areas of the body that can now be scanned require totally new Collimators. Let us CUSTOM-DESIGN and MANUFACTURE both Collimators and Shields — based on your ideas or requirements — for compatible use in new or existing equipment.



AMERICAN COLLIMATOR COMPANY

215 Commerce Exchange Building
405 - CE 6-0112

OKLAHOMA CITY, OKLAHOMA
73102



NUC-D-5-212

CROWD-PLEASER

RECOGNITION. The advanced, human-engineered design of Nuclear-Chicago's Pho/Dot® isotope scanner generates comment:

"What I like about Pho/Dot is the way that it standardizes scanning techniques."

"Performs even better than we expected . . . we can use Pho/Dot in our small room."

"The mechanics of setting up a scan are built into the machine where they belong."

APPRECIATION. Pho/Dot's photo and dot records—unmatched for reliability and resolution—produce talked-about results:

"Sharp, clear records are number one in my book . . . Pho/Dot gives results like that day in and day out."

"All I know first-hand about Pho/Dot's reliability is that it performs like clockwork."

"I do all the scans now . . . the doctor is free to interpret them."

POPULARITY. Quick to become the choice of clinicians, Pho/Dot earns widespread acclaim:

"We regularly update evaluation on our instruments . . . Pho/Dot is still our choice."

"Because I was getting such good results, he chose Pho/Dot on my recommendation."

"Pho/Dot? We have three units."

DISCOVERY. Find out about Pho/Dot. Listen to one of your colleagues who owns a Pho/Dot. Then ask your Nuclear-Chicago sales engineer or write us for the full details.



NUCLEAR-CHICAGO

A DIVISION OF NUCLEAR-CHICAGO CORPORATION

313 Howard, Des Plaines, Ill. 60018 U.S.A.

In Europe: Donker Curtiusstraat 7
Amsterdam W, The Netherlands

Scientists and engineers interested in challenging career opportunities are invited to contact our personnel director.