



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."

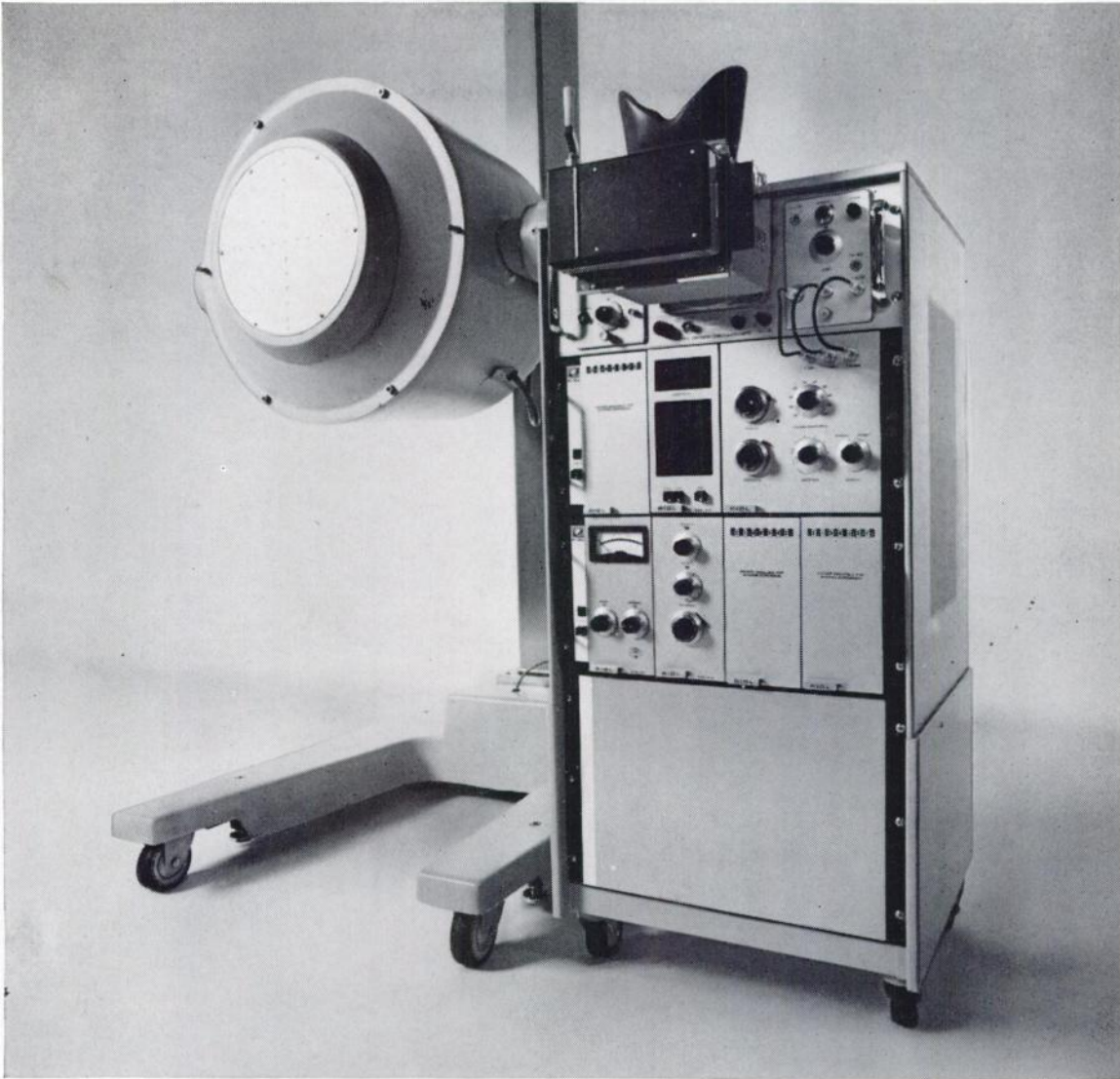
Triosorb is available to all doctors, hospitals and clinical laboratories—AEC licensing is not required. Because Triosorb will enable far more screenings to be performed, this procedure may soon become as standard as today's blood counts and urinalyses.



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

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

Pho/Gamma Camera derives from the work of H. O. Anger.



NUC-D-5-225

EXCELLENCE TIMES TWO

CLINICAL WORKHORSE. One side of Pho/Gamma™, the sensitive, high-speed scintillation camera from Nuclear-Chicago. Proved clinical usefulness for large patient loads. Three to ten times faster than our own Pho/Dot® isotope scanner. Result: economy for hospitals with heavy scanning schedules.

RESEARCH SOPHISTICATE. A second side of Pho/Gamma. Research capability using rapid-sequence, stop-motion pictures—"isotope movies." Never-before-possible dynamic studies of body processes. Totally new areas of investigation.

THE BEST OF BOTH. For clinical diagnosis. For research. A single, field-tested, performance-proved instrument. One way to get both isotope-distribution pictures and stop-motion images of dynamic processes with unprecedented speed and sensitivity.

JUST FOR THE ASKING. Detailed accounts of Pho/Gamma's successes. From those clinicians and researchers already using it. From your Nuclear-Chicago sales engineer. And from us—please write.



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.



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)



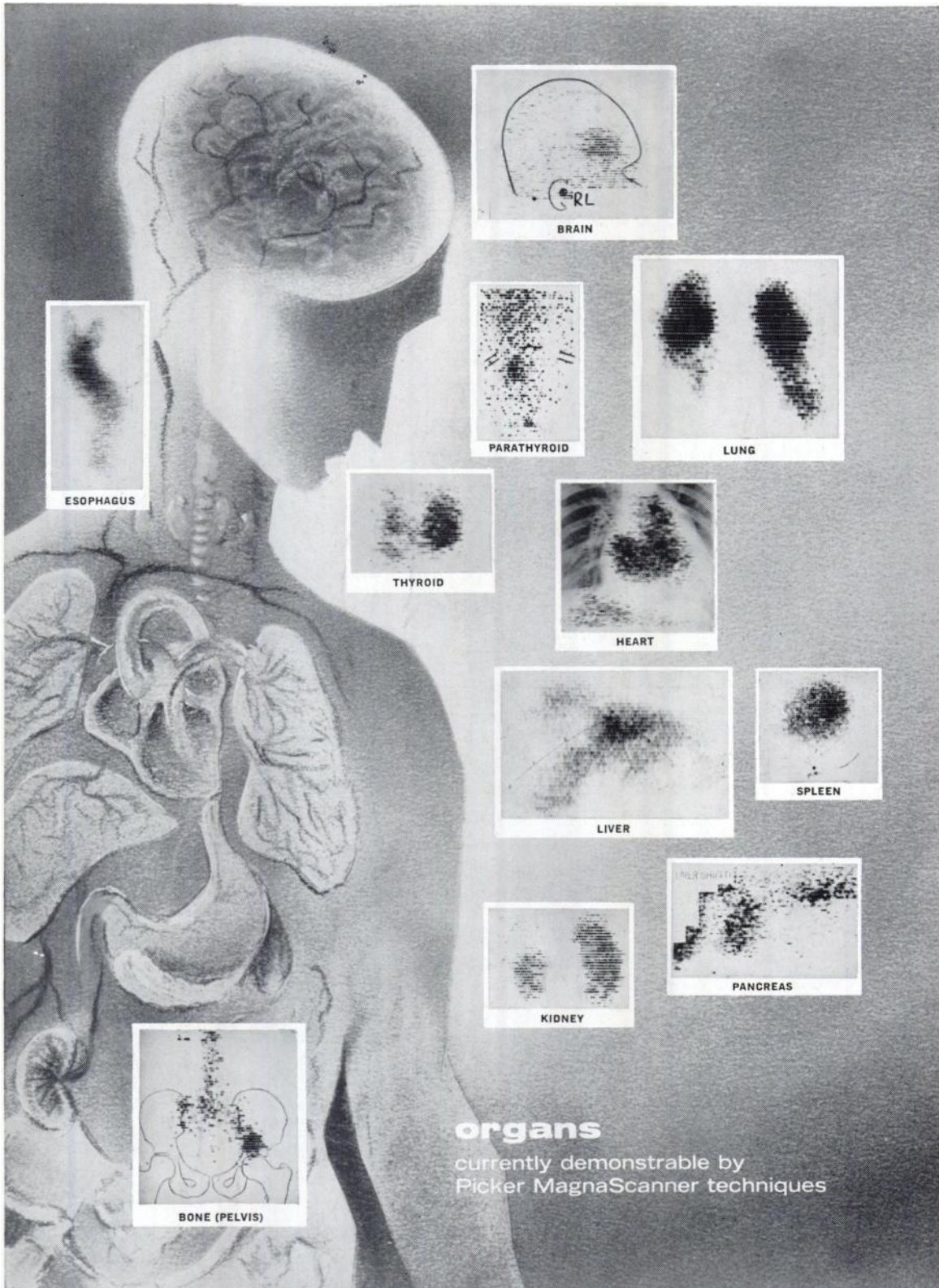
or Burbank, California
laboratory
(area code 213 849-6023)
assures you that your orders
are handled as specified.

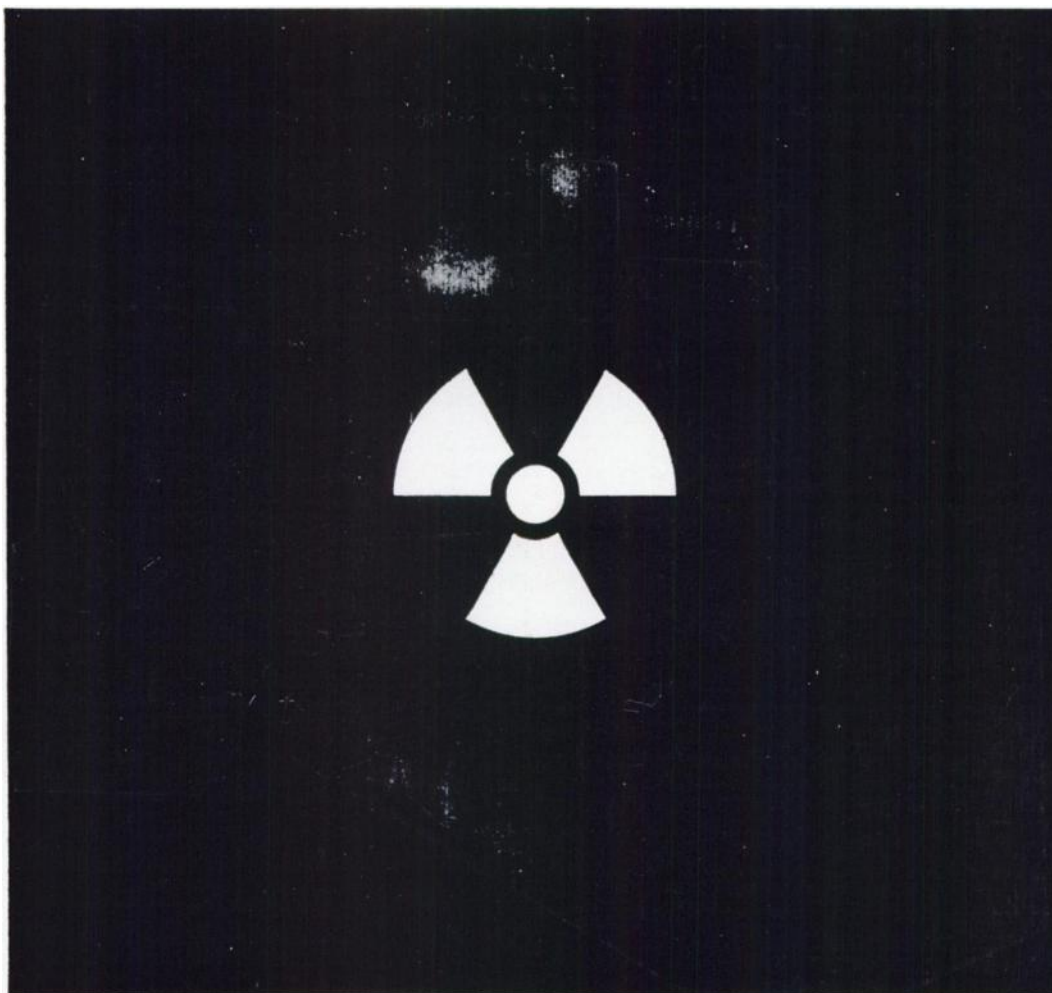
Write for the 1965 Volk Radiomedicines catalog.



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.





 **MEDOTOPES[®]**
SQUIBB RADIOPHARMACEUTICALS

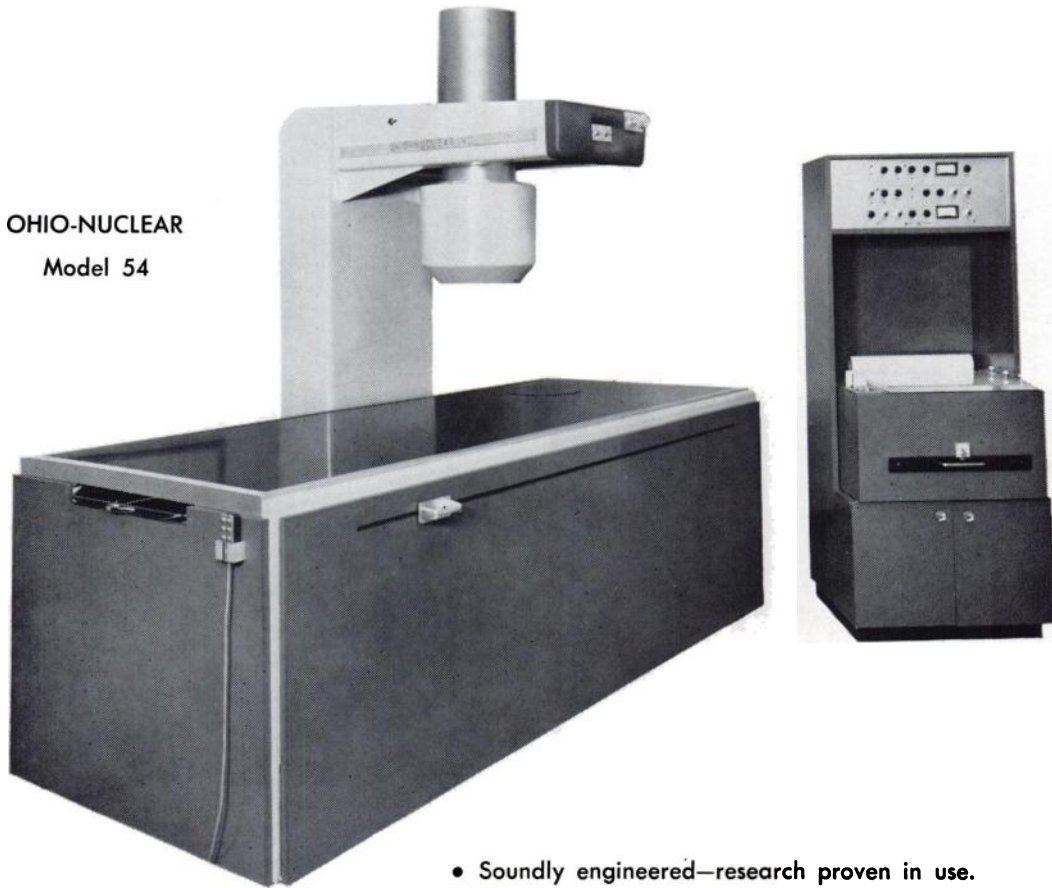
Medotopes reflect the latest developments in nuclear medicine. All provide the utmost in safety and convenience. All have unique packaging safeguards so that direct contact is never required. Exclusive lead shield enclosures are fitted with bottle caps that unscrew automatically. Saf-Tag[®] vials and 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**

Large Crystal Radioisotope Scanners

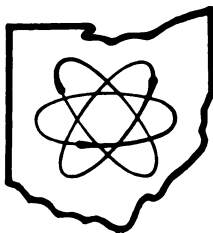
OHIO-NUCLEAR
Model 54



FEATURES:

- Soundly engineered—research proven in use.
- 200 inches (500 cm) per minute scanning speeds.
- Choice of above or beneath table scanning.
- Dual Scanner capability—now or later.
- Gammagraphic Photoscan & Dot-tapper.
- Prompt service by capable factory engineers.
- 5-inch crystal scanner price—\$16,750.
- 8-inch crystal scanner price—\$20,700.

For Full Information WRITE OR CALL US • WE BELIEVE YOU WILL BE GLAD YOU DID.



OHIO-NUCLEAR, INC.

1725 FALL AVENUE

CLEVELAND, OHIO

216 - 621-8477

**In Radiation Counting
and Ultrasonics . . .**

ACCURACY Begins With SENSITIVITY

ECHO ENCEPHALOGRAPHY
Midline measurements
Lesion localization
and identification.

ARM COUNTERS
Retention studies, Blood volume investigations, Vitamin B₁₂ absorption, Plasma protein survival, Body counting of small animals.

WHOLE BODY COUNTERS
Measurement of burdens of radium, thorium, uranium and other radioactive elements. Measurement of total body potassium. Clinical studies with Fe⁵⁹, Na²², I¹³¹, and others. Metabolic research with radionuclides.

ULTRASONIC SCANNING
Mammography; Kidney, Liver, Prostate studies; Fetal Measurements.

Visit Our Booth at Bal Harbour — June 16 - 19.

Write for Bibliography.

METRIX, Incorporated
POST OFFICE BOX 6222 • DENVER, COLORADO 80206
Area Code 303 • Telephone 399-2767

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

Guaranteed Dependable ISOTOPES

ADDED VALUES

IN EVERY ISO/SERVE ISOTOPE

- **PRE-CALIBRATION**
(for time of arrival)
- **STERILIZATION**
(no charge)



- **ANY CONCENTRATION**
(or volume)
- **NO HANDLING CHARGE**

EXCELLENT SCANNING
WITH TECHNETIUM 99M
ISO/IHSA IODINE — 131
ISO/MERIDRIN —
MERCURY — 197 AND
MERCURY — 203
STRONTIUM — 85
CALCIUM — 47

OTHER ISOTOPES FOR
THE CLINICIAN
PHOSPHORUS — 32
CHROMIUM — 51
IODINE — 131
IODINE — 125
IRON — 55
IRON — 59

CALL OR WRITE FOR COMPLETE INFORMATION


OTHER SHORT AND LONG-LIVED RADIO PHARMACEUTICALS,
BIOASSAY, HEALTH PHYSICS SERVICES, INDUSTRIAL HYGIENE,
STANDARDS AND CUSTOM SOURCES, ISOSETS

ISO/SERVE, INC.

131 Portland St., Cambridge, Mass. (617) 491-2200

Guaranteed Excellence

**ALL RIGHT, 3M, SO TELL ME ALL ABOUT
RADIATION SOURCES
THAT OUTLAST RADIUM AND Co-60—
OFFER GREATER SAFETY AND ECONOMY!**



Mail to Nuclear Products, 3M Company,
Dept. BRB-55, St. Paul, Minn. 55119.

TELL ME MORE about 3M Brand Medical Radiation Sources.

Name _____

Address _____

City, State, Zip _____

The coupon will bring you full information on cells and needles made with 3M Brand Cs-137 Radiating Microspheres. They offer isodose contours similar to radium and Co-60, with these advantages . . .

The 3M devices outlast their Co-60 counterparts by 6 times, retain 85% of initial activity for over 7 years and cost less in the long run. They cost only a fifth as much as radium devices. Outlast them, too, because there's no radon emission to impair service life.

And the 3M sources are *safer!* No internal build-up of toxic gases that can cause rupture during sterilization or

therapy. *Safer* because the actual isotope is confined in 3M Radiating Microspheres that render it chemically and physiologically inert. *Safer*, too, because the 3M cesium sources offer a softer, easier-to-confine gamma radiation than radium or Co-60, thus need less shielding.

Available in a variety of sizes and levels of radioactivity so you can use these devices with established dosage tables and applicators. Send us the coupon for full information.

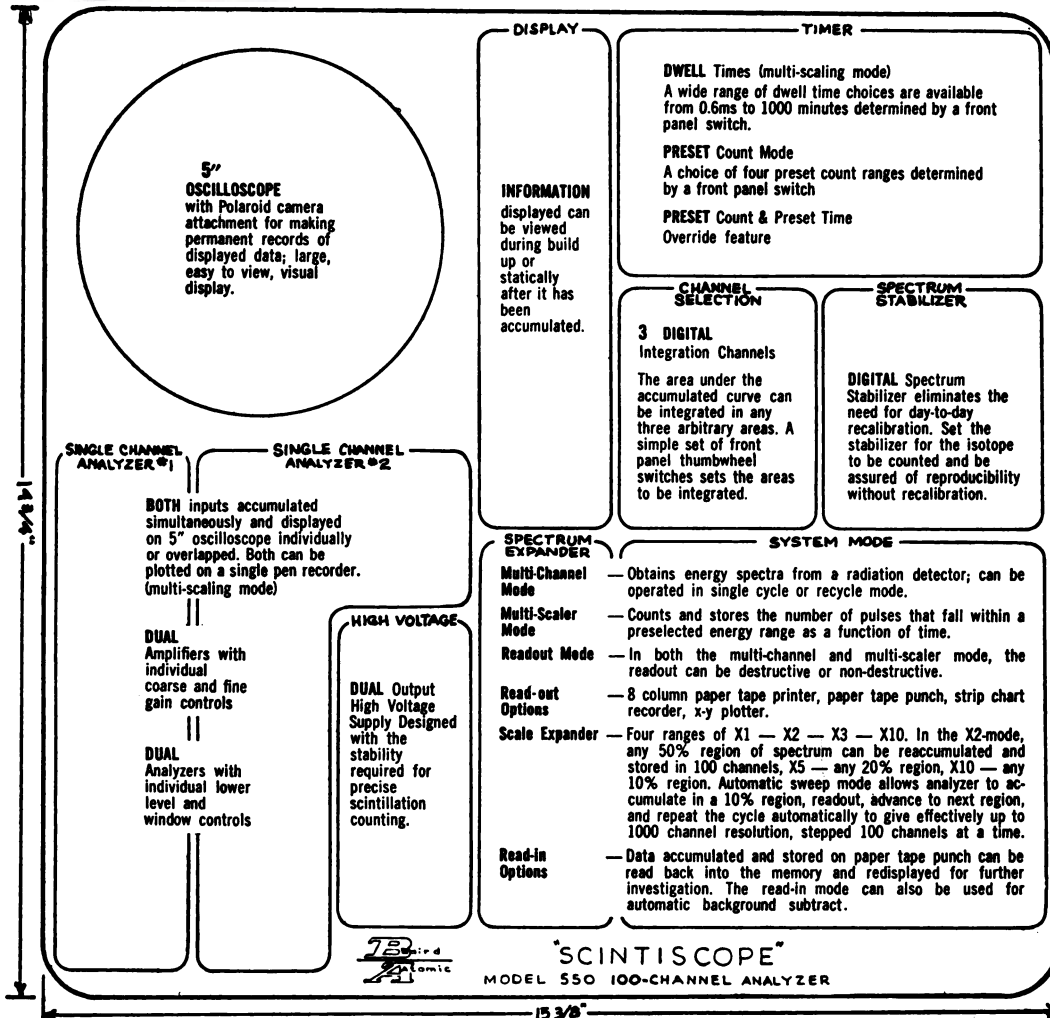
Nuclear Products  COMPANY

Completely New Model 550 "Scintiscope" 100-Channel Analyzer

(A complete nuclear medical laboratory)



For:
Dynamic Function Studies
Cardiac — Renal Clearance
Blood Volume — Circulatory Studies
Uptakes — Well Counting.



ATOMIC & LABORATORY INSTRUMENTS DIVISION

BAIRD-ATOMIC, INC.

IN EUROPE: BAIRD-ATOMIC (EUROPE) N.V.
2627 VEENRADE, THE HAGUE, HOLLAND



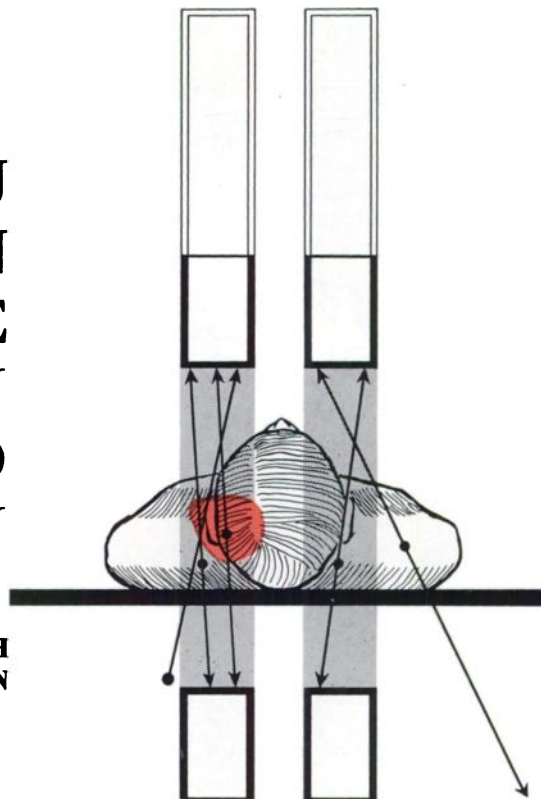
33 University Road, Cambridge, Mass. 02138

SALES/SERVICE OFFICES: ATLANTA-BOSTON-CHICAGO-DALLAS-DETROIT-
LOS ANGELES-NEW YORK-PHILADELPHIA-SAN FRANCISCO-WASHINGTON, D.C.

"Visit us at the meeting, Booth 102-104."

NOW YOU CAN MEASURE CORONARY BLOOD FLOW

WITH
THE **AS&E** CO-INSITRON



RECORDINGS FROM FIVE DETECTORS PERMIT ACCURATE DETERMINATION OF CORONARY BLOOD FLOW!

Potential Uses of the CO-INSITRON Include

- Diagnostic Tests to Recognize Coronary Heart Disease
- High-Accuracy Measurement of Myocardial Clearance and Blood Flow, Without Catheterization
- Evaluation of Effectiveness of Coronary Vasodilatory Drugs

The CO-INSITRON, an integrated system for radio-activity detection, includes two pairs of coincidence detectors and a well counter ... five coordinated detectors!

The coincidence detection technique eliminates background counts from natural radioactivity, cosmic rays, and stray sources. No radiation is counted from sources outside the cylindrical field between the two detectors in each pair.

Clear separation of the heart muscle radioactivity from that of the surrounding structures is achieved.

With an Rb⁸⁴ isotope source, the coincidence technique gives more than five times the counting rate of the singles method, yet no heavy or cumbersome shielding is used.

For further information, visit our booth #131 at the Society of Nuclear Medicine annual meeting, write for our descriptive brochure, or call 617-876-4400.



AMERICAN SCIENCE & ENGINEERING, INC.

11 Carleton Street, Cambridge, Massachusetts 02142



JET DELTA

TO THE SOCIETY OF NUCLEAR MEDICINE

MIAMI BEACH • JUNE 16-19

Discover the Delta technique . . . it's the thoughtful personal attention that will make your air travel a delightful pleasure.

Women, too, go for Delta service. Take your wife and save 25% on Delta's economical Family Plan.

And just say "charge it." Use your American Express, BankAmericard, Carte Blanche or Diners' Club card.

Call Delta . . . see your Travel Agent . . . or write Convention Bureau, Delta Air Lines, Atlanta, Georgia.



General Offices:
Atlanta, Georgia



ADVERTISING INDEX

Abbott Laboratories
North Chicago, Illinois
Inside Front Cover, i

American Collimator Company
Oklahoma City, Oklahoma ix

American Science and Engineering
Cambridge, Massachusetts xiii

Baird-Atomic
Cambridge, Massachusetts xii

Delta Air Lines
Atlanta, Georgia xiv

Iso/Serve
Cambridge, Massachusetts x

Metrix, Inc.
Denver, Colorado ix

Nuclear-Chicago
Des Plaines, Illinois . . . Back Cover, iii

Nuclear Consultants
St. Louis, Missouri . . Inside Back Cover

Nuclear Products
St. Paul, Minnesota xi

Ohio-Nuclear
Cleveland, Ohio viii

Picker X-Ray Corporation
White Plains, New York vi

Squibb, E. R. & Sons
New York, New York vii

Volk Radiochemical Company
Chicago, Illinois v

For Greatly Improved Scanning

TECHNETIUM (Tc^{99m})

*Delivered
EVERY
Monday*

- an ideal scanning agent with easily collimated 140 kev gamma.
- 6 hour half-life minimizes patient exposure.
- permits dosage up to 10 mc, allowing greatly reduced scanning time with any scanner.
- can be administered orally or by intravenous injection.
- delivered EVERY Monday in NCC Technetium source generator.

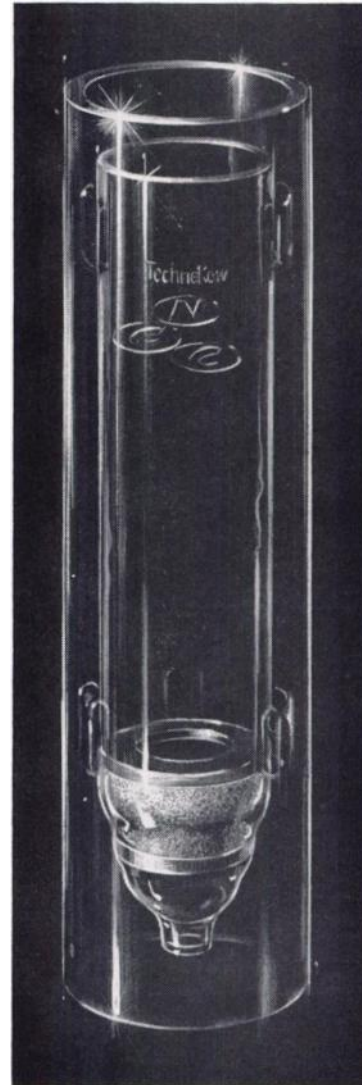
*America's First Commercial
Supplier of Technetium (Tc^{99m})*

REFERENCES:

Harper, P.V., Beck, R., Charleston, D., and Lathrop, K.A.: "Optimization of a Scanning Method Using Tc^{99m}," *Nucleonics*, 22:1, 50-54, January 1964.

Harper, P.V., Lathrop, K.A., and Richards, P.: Tc^{99m} as a Radiocolloid. *J. Nuclear Med.* 5:5, 382, May 1964.

Smith, E.M.: Radiochemical Purity, Internal Dosimetry and Calibration of Tc^{99m}. *J. Nuclear Med.* 5:5, 383, May 1964.



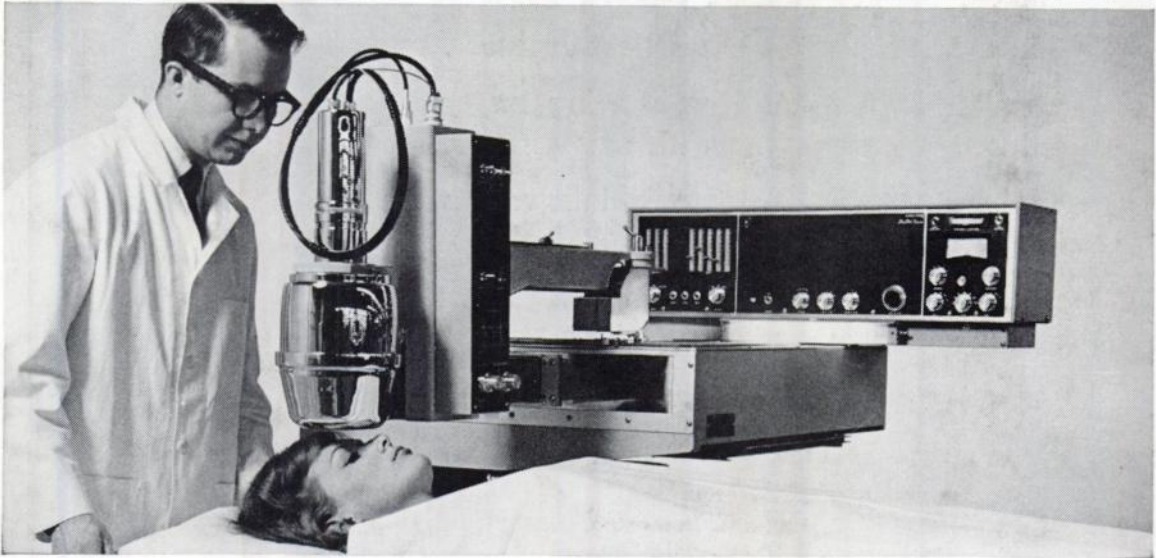
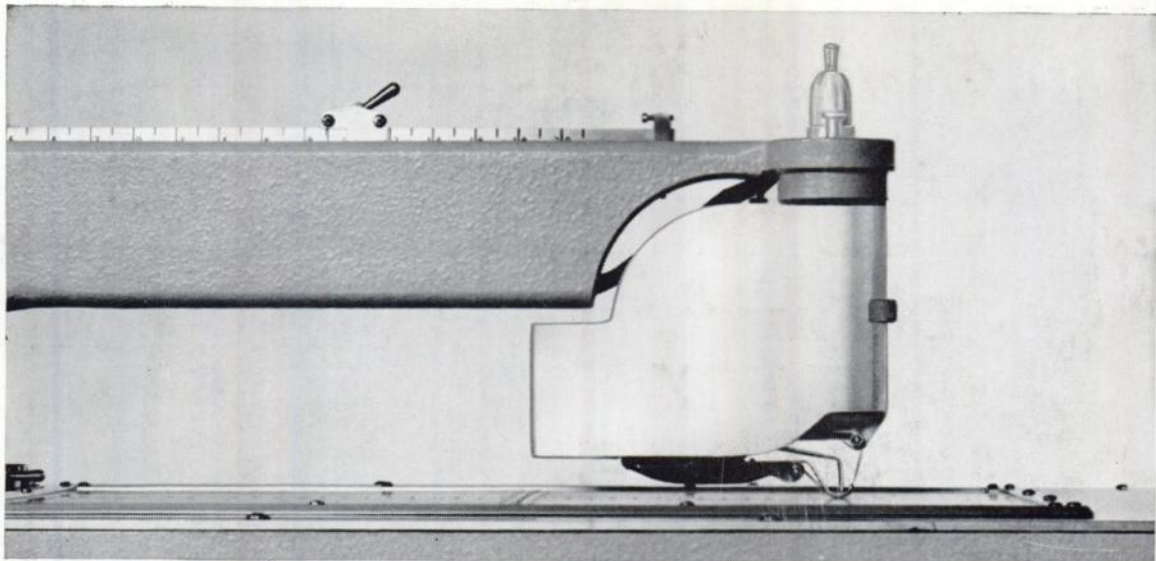
Write for complete information today



**NUCLEAR CONSULTANTS
CORPORATION**

Box 6172, Lambert Field, St. Louis, Missouri 63145

Chicago
Cleveland
Houston
Los Angeles
New York
San Francisco
Washington, D.C.



NUC:D-5-224

ON TAP: ADVANCED SCANNING

OUTPUT. Dot scans with a truly digital presentation of isotope distribution. Produced by the Rapi/Dot™ high-speed tapper in Nuclear-Chicago's Pho/Dot® scanner. Sharp, one-dot per one-count readout explains growing reliance on Pho/Dot's high-fidelity scans for easy interpretation.

ADVANTAGES: New line spacing control to overlap rows of dots and minimize line structure of scan. Clean, clear records on paper—no odor or blooming. Rapi/Dot tapper follows extremely high count rates without jamming. Produces dot scans approaching gray scale of photo scans.

COORDINATION. Simultaneous production of Rapi/Dot scan on paper and photo record on X-ray film. Background suppression on either or both systems for greater definition. Result: dot and photo records unmatched for readability and resolution.

ON TAP: MORE FACTS. Full information on Pho/Dot's human-engineered design, foolproof operation, and functional convenience from three sources. Your colleagues. Your Nuclear-Chicago sales engineer. Or write us.



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.