



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.



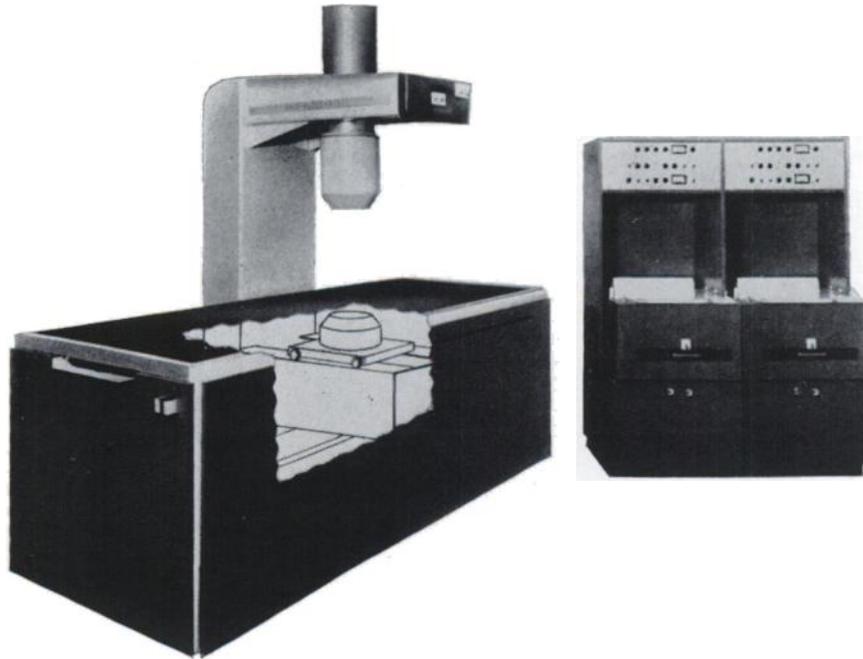
*McAdams, G. B. and Reinfrank, R. F., *Jrnl. Nuclear Med.*, 5:112, Feb., 1964.

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

RADIOISOTOPE SCANNER

MODEL 54-FD

DUAL, OPPOSED, 5-INCH CRYSTALS



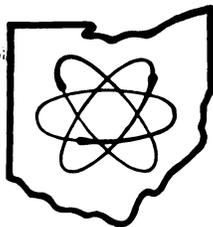
The demonstrable advantages of a dual 5-inch crystal scanner should be investigated by all those with a high clinical load who desire high resolution, rapid scans of both large and small organs or of the whole body.

The two scanning heads, exactly opposite each other, have separate, and complete electronics and print-out so that the data collected by each crystal may be used separately, in coincidence, or additively.

Mechanical and electronic specifications are the same as for our other large-crystal radioisotope scanners Models 54F and 54H:

Scanning speeds continuously variable to 200 inches per minute (500 cm/min.); adequate shielding even for high energy gamma emitters (up to 3 inches lead and 1 inch steel); high resolution crystals (9 per cent or better); accurate, reproducible scanning speeds and line spacing; no scalloping at any speeds; low background crystals (2 inch thick pure NaI light pipe); Gamma-graphic (patent pending) or slit mask photoscans; unequivocal one year warranty anywhere in USA or Canada.

This unparalleled radioisotope scanner is priced at \$28,750 with delivery in 90 days guaranteed.



OHIO-NUCLEAR, INC.

1725 FALL AVENUE

CLEVELAND, OHIO

216 - 621-8477

only from



***NEW CHLORMERODRIN Hg 197 FROM NCC CONTAINS LESS THAN 0.1% Hg 203...even a full week after shipment.** No other source provides this quality. And NCC supplies it to you at *no* additional cost.

Uniform Specific Activity

This excellent brain scanning agent is shipped with the same Hg 197 specific activity every day. Specific activity adjusted to 400 $\mu\text{c}/\text{mg}$ on the calibration date and freedom from Hg 203 eliminate all concern about diuretic effects.

Controlled Decay Program

Hg 197 decays in your patient, not on your shelf. Ask for full details about NCC's controlled decay program.

Demonstrated Leadership from the Specialist

When you specify NCC, you receive the quality product you want, delivered when you want it. To be sure you're using the finest Hg 197 available, order now.

Write or call today for further information

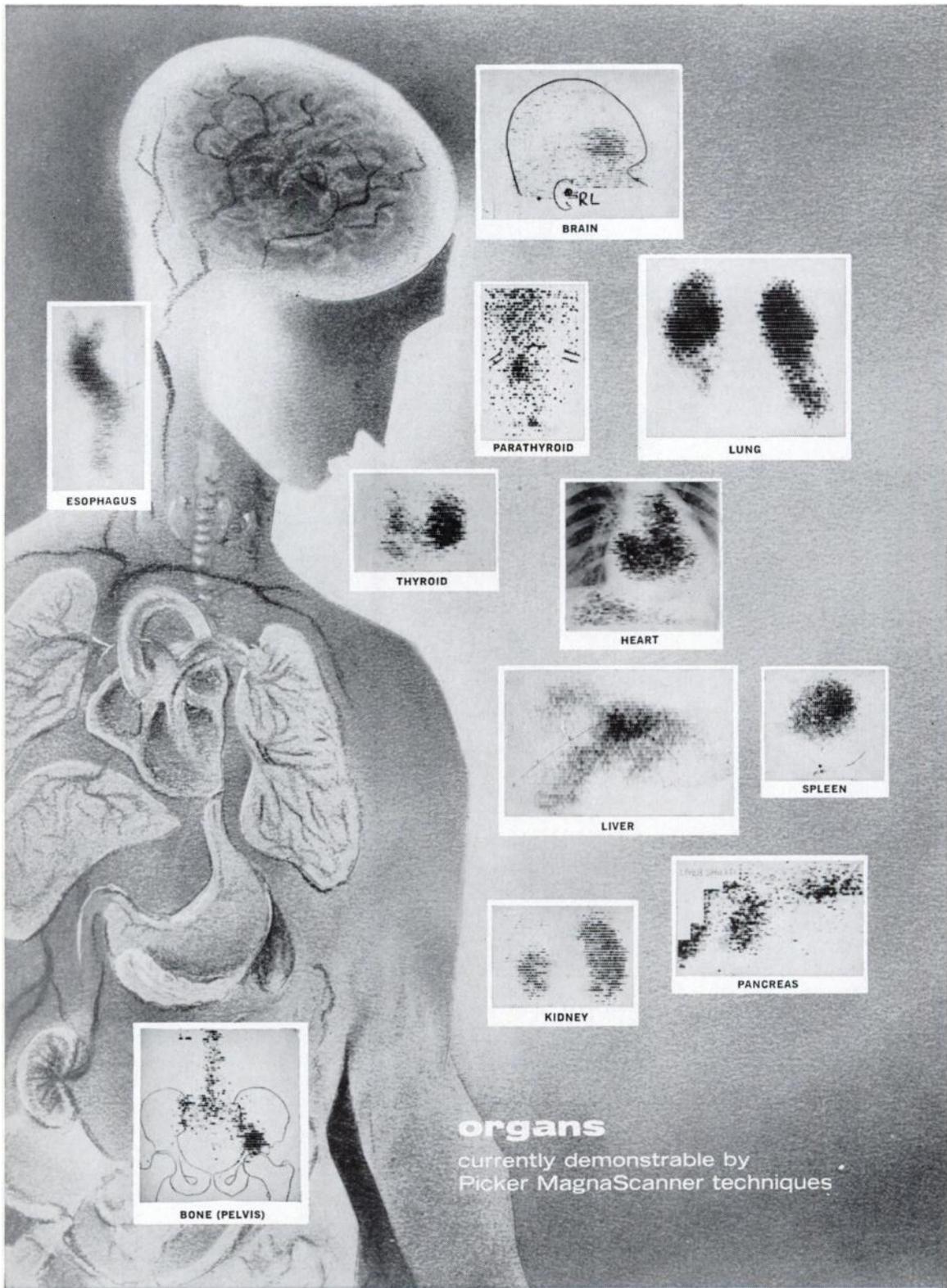


NUCLEAR CONSULTANTS,
DIVISION OF MALLINCKRODT CHEMICAL WORKS

Box 6172 Lambert Field, St. Louis, Missouri 63145



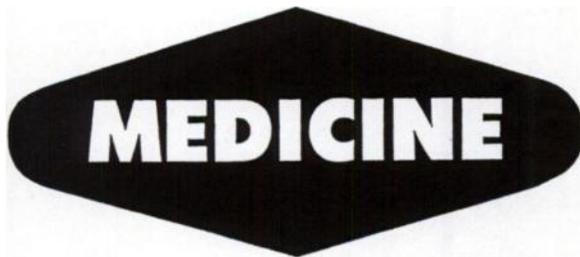
ATLANTA CHICAGO CLEVELAND HOUSTON LOS ANGELES
MIAMI NEW YORK SAN FRANCISCO WASHINGTON, D. C.



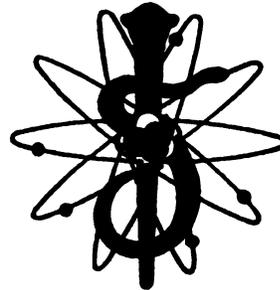
A Valuable Addition To Your Professional Library

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,

Niel 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.

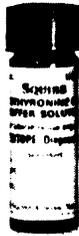
**Published
Monthly**



for accuracy with in vitro thyroid function tests select...

the label— I^{125}

Squibb's Tresitope Diagnostic Kit uses I^{125} rather than I^{131} because I^{125} has a longer half life; emits no beta rays to affect the stability of the liothyronine; makes shielding easier.



the form—resin powder

To give you reproducible results, Squibb's Tresitope Diagnostic Kit uses resin powder, thus avoiding "the difficulty of preparation of different batches of resin sponges with identical properties."^{*}



*Sterling, K., and Tabachnick, M.: J. Clin. Endocrinol. 21:456, 1961.

Tresitope[®]
Diagnostic

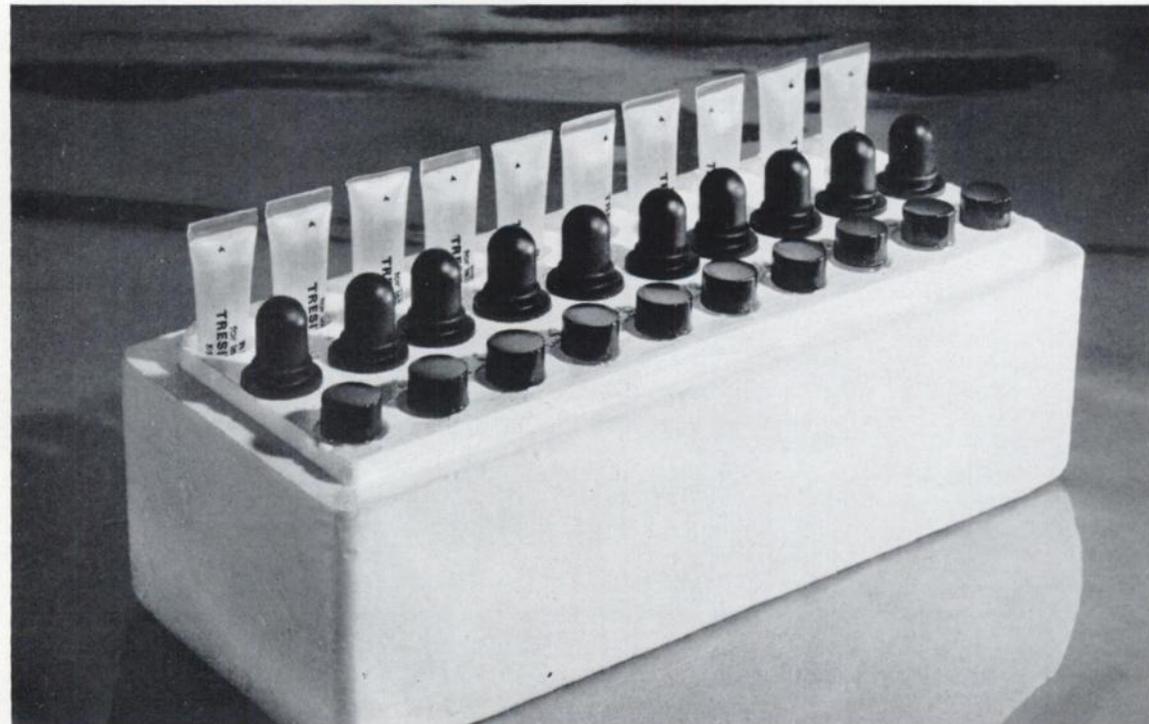
Kit SQUIBB RESIN UPTAKE KIT WITH LIOTHYRONINE I^{125} BUFFER SOLUTION

For determining thyroid function, T-3 testing □ is rapid, accurate and reproducible □ is completely self-contained—the isotope counter is the only equipment you need □ is unaffected by anxiety, hypertension, heart failure, or exogenous iodine except when amount is sufficient to suppress secretion of thyroid hormone □ doesn't expose the patient to radiation □ doesn't require an AEC license

SQUIBB

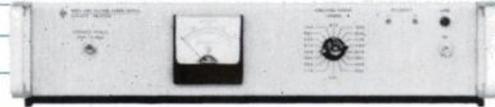


Squibb Quality—
the Priceless Ingredient





**UNSURPASSED
ACCURACY
AND RELIABILITY**



IN NUCLEAR INSTRUMENTATION

To nuclear instrumentation, Hewlett-Packard brings over 15 years' experience in electronic counters and other measuring equipment. With nuclear instruments from hp, results are more accurate and repeatable. Unique design and packaging concepts assure reliability, versatility and convenient use in detecting and counting. A wide variety of recording devices are also available.

Scintillation Detectors Premium selected NaI (TI) crystals and photomultiplier tubes permit Hewlett-Packard to be the only manufacturer to guarantee detector stability ($\pm 1\%$ or $\pm 2\%$) and resolution ($\pm 8\%$ or $\pm 10\%$). O-ring seals offer reliable performance in adverse environments. Pre-amp, amplifier and focus control are built in. Series 10600 Scintillation Detectors are priced from \$835. Preamp-amplifier section for assembling special gamma and X-ray detectors available separately (Model 10615A), as is a lead shield (Model 10650).

Scaler-Timer-Pulse Height Analyzers Model 5201L Scaler-Timer allows exceptionally wide flexibility. The instrument has single-channel pulse height analyzer for manual or automatic spectrometry, excellent linearity (0.25%), stability (better

than 0.01% / °C) and settability (to 1 mv by means of odometer-type dials). Instrument has an in-line numerical readout with storage, 200 nsec pulse pair resolution, and wide-range preset count, time controls and printer output. Model 5201L Scaler-Timer, \$1950. Other models available from \$950.

High Voltage Supply Model 5551A, highly regulated, low ripple supply provides output of 170 to 1615 volts. Features both stepped and vernier controls for rapid, accurate voltage setting.

Hewlett-Packard nuclear instrumentation is backed up with expert world-wide service and sales facilities—that offer more services than any other manufacturer of nuclear instrumentation. Write today for complete data, or contact your nearest field sales office. Hewlett-Packard, Palo Alto, California 94304, Tel. (415) 326-7000; Europe: 54 Route des Acacias, Geneva.

Data subject to change without notice. Price f.o.b. factory.

HEWLETT  **PACKARD**
An extra measure of quality

1532

We are pleased to announce the addition of **VOLUME 6** to our previously announced set of Vols. 1-5
Available 1966

Journal of Nuclear Medicine

Vols. 1-6. Chicago. 1960-1965. (Reprint 1966)

Cloth bound set\$185.00

Paper bound set 170.00

Vols. 1-4, 1960-1963

Per volume, paper bound 20.00

Vols. 5, 6, 1964, 1965

Paper bound 45.00

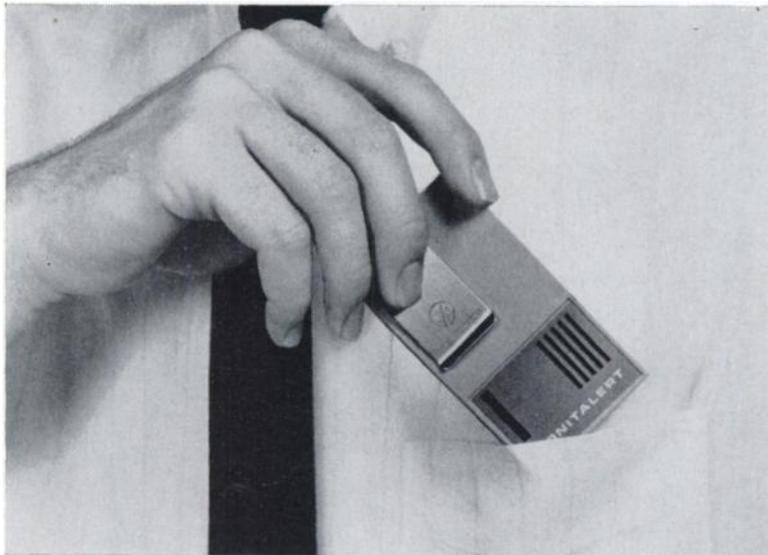
Available 1966

The **Journal of Nuclear Medicine**, official publication of the Society of Nuclear Medicine, features original articles in clinical medicine, basic and clinical medicine research, physics and chemistry dealing with the use of isotopes in humans and articles on related subjects. This includes dosimetry, instrumentation, protection, techniques, biologic effects contributing to the use or effects of isotopes in clinical medicine and the clinical effects of ionizing radiation.

JOHNSON REPRINT CORPORATION

111 Fifth Avenue, New York, N. Y. 10003

JOHNSON REPRINT COMPANY LTD., Berkeley Square House, London W.1, England



**INSTANT
WARNING
...WITH
THE
NEW
MONITALERT***



• Audibly warns you when you enter a beta-gamma field of 1mr through 100r/hr. • Frequency of beeping signal proportional to level of encountered radiation. • May be worn in shirt pocket or on belt. • Self-checking battery with up to three months' operation. • High reliability provided with printed circuit board, solid-state components, high-impact case. For complete specifications, including pricing of new Monitalert devices, contact Physics International Co., 2700 Merced St., San Leandro, Calif. 94577, Phone (415) 357-4610.

*Trademark of Physics International

**CONSULTANT
IN
NUCLEAR MEDICINE**

Ottawa, Canada

The Department of National Health and Welfare requires a medical doctor as an adviser to the Radiation Protection Division in all matters relating to the regulatory control of the use of ionizing radiation in medicine. Features of the position include establishing minimum standards and qualifications for the clinical use of isotopes and the preparation of informational bulletins.

The EXPERIENCED MEDICAL DOCTOR we are seeking will have at least three years' experience in nuclear medicine including clinical experience in the use of radioisotopes for diagnostic purposes. A background in Internal Medicine would be an asset. A license to practise medicine in a province of Canada is necessary before an appointment can be made. Salary up to approximately \$17,000.

Send resumes IMMEDIATELY to the

**CIVIL SERVICE COMMISSION OF CANADA
OTTAWA 4, CANADA**

Quote reference 66-165-02

Tracerlab Film Badge Service



where people count!

A dosimetry badge is a personal thing; the health, the very life of the wearer may depend on it. That's why Tracerlab people give so much personal care and attention to each and every film badge that passes through their hands, before and after computer processing and quick return to you. And more dosimetry badges pass through their skilled hands than any other monitoring service. Yours should be among them.

You can also count on Tracerlab people for the safest, most reliable radioactive sources in the world — a wide selection of stock or custom types for standardization and analysis. For dependable products and services in the life sciences and health physics, including a broad range of radioanalytical services, come to Tracerlab — where people count!



TRACERLAB

A Division of Laboratory For Electronics, Inc.
WALTHAM, MASSACHUSETTS 02154

Film Badge Service • Health Physics • Bioassays • Sources • Nuclear
Instrumentation • Radiochemicals • Radioactive Waste Disposal
• Radiation Monitoring Instrumentation • Isotope Applications

Advertising Index

Journal of Nuclear Medicine

June, 1966

- Abbott Laboratories
North Chicago, Illinois IFC, i
- Civil Service Commission
of Canada
Ottawa 4, Canada x
- Duphar Nuclear Corporation
Amsterdam, Holland xii
- Hewlett Packard
Palo Alto, California viii
- Johnson Reprint Corporation
New York, New York ix
- Nuclear-Chicago
Des Plaines, Illinois BC
- Nuclear Consultant Corporation
St. Louis, Missouri v, IBC
- Ohio-Nuclear
Cleveland, Ohio iii
- Picker-X-Ray Corporation
White Plains, New York vi
- Physics International
San Leandro, California ix
- Squibb, R. R. & Sons
New York, New York vii
- Tracerlab
Waltham, Massachusetts xi

duphar nuclear pharmaceuticals

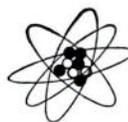
How many hours are you from Amsterdam Airport?

Check any time-table and you'll see that it's just a few. That makes our worldwide delivery a question of hours.

Moreover, one of our 70 agents throughout the world provides you with an on-the-spot service.

We specialize in carrierfree cyclotron isotopes: from our own cyclotron at Petten Reactor Centre, Holland. Further, our extensive delivery program includes reactor isotopes, C14/H3 compounds, industrial sources and Nuclear Pharmaceuticals. We shall be glad to send you complete catalogues and information on request.

**N.V. PHILIPS-DUPHAR
AMSTERDAM HOLLAND**
Apollolaan 151
Telegrams:
Vitamine-Amsterdam
Telex 14232



Demonstrated Leadership from the specialist

The TECHNEKOW® Shielded Dispenser

A NEW COMPACT "HOT LAB"

by NCC

A Shielded Self-Contained System
for Producing Sterile Technetium
from the TechneKow Source Generator



Completely lead shielded, the new E-1810 Dispenser provides a semi-automatic system for producing a sterile solution of sodium pertechnetate with minimum radiation exposure. It eliminates the need for awkward shielding and handling devices, and enables the smaller laboratory to use technetium on a daily basis.

Insert generator into shielded upper chamber of Dispenser, where it may be stored for daily use. Each day the internal disposable processing parts are replaced with a fresh sterile set.

Operate The TechneKow Shielded Dispenser In 3 Easy Steps

1 □ Pour eluting solution into generator and replace shielded cap.

2 □ When solution has passed through the TechneKow, open dispenser door, reach in and lift up processing unit to activate operation. The solution automatically passes through a sterilizing filter and is injected into a sterile, pyrogen-free bottle.

3 □ Remove bottle with its shielded jacket. Solution is ready for calibration.

The NCC TechneKow Shielded Dispenser is of heavy welded construction with polished chrome plating. A two-inch thick lead shield surrounds the TechneKow source generator. Lead shielding on the walls and door of the lower processing chamber keeps radiation at a minimum. Disposable processing parts are available in kit form.

Write today for further information.



NUCLEAR CONSULTANTS

DIVISION OF MALLINCKRODT CHEMICAL WORKS

Box 6172 Lambert Field, St. Louis, Missouri 63145

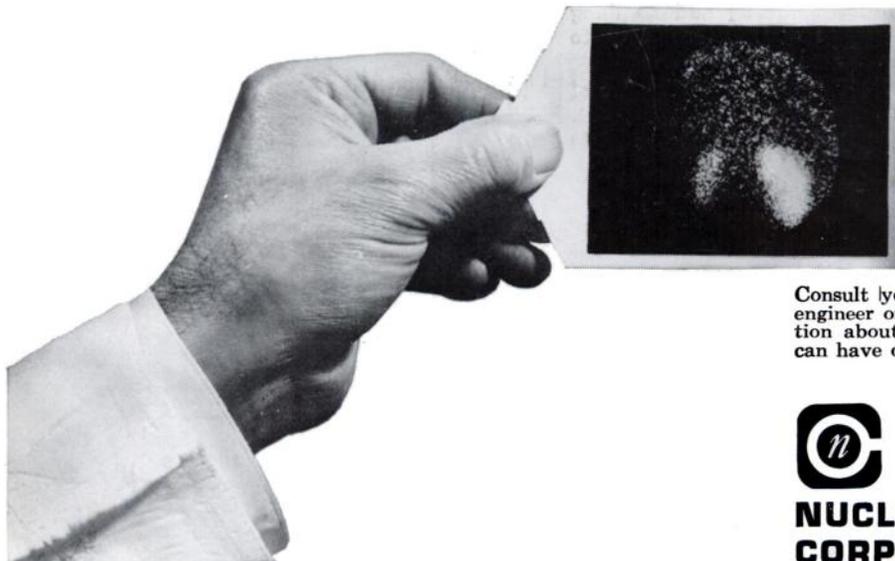
CHICAGO CLEVELAND HOUSTON LOS ANGELES
MIAMI NEW YORK SAN FRANCISCO WASHINGTON, D. C.



**There's no
clinical advantage to
a 3 $\frac{1}{4}$ " x 4 $\frac{1}{4}$ " photo of
radioisotope distribution.**

**Unless you like
speed, sensitivity,
and
statistical accuracy.**

**That's why the Pho/Gamma[®]
Scintillation Camera is making
all rectilinear scanners
obsolete (even our own).**



Consult your Nuclear-Chicago sales engineer or write to us for information about the impact Pho/Gamma can have on your work. NUC-D-8-881



**NUCLEAR-CHICAGO
CORPORATION**