

New Products

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither Science nor the writer assumes responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to the manufacturer. Include the department number in your inquiry.

■ **MAGNETIC-TAPE SEARCH AND CONTROL SYSTEM** employs time-code detection, using 24-bit, binary-coded-decimal time code. Search and playback are performed at any speed from 1 7/8 to 150 in./sec and in either direction. Contact closures are provided for operation of auxiliary equipment during the interval between preset start and stop times. Early contact closures are provided to allow equipment to be brought up to speed. The time code being searched is continuously displayed in digital form. (Electronic Engineering Co. of California, Dept. Sci870, 1601 E. Chestnut Ave., Santa Ana, Calif.)

■ **CENTRIFUGE** for medical and industrial laboratories permits a wide selection of horizontal, angle, and basket heads. Speeds to 5500 grav are attainable. Where high centrifugal fields in small volume are required, a high-speed attachment will provide up to 37,000 grav. (International Equipment Co., Dept. Sci886, 1284 Soldiers Field Rd., Boston 35, Mass.)

■ **PROGRAMMED-TEMPERATURE CHROMATOGRAPH** permits column operation from ambient temperature to 500°C. Two columns are used, one for analysis and the other for column vapor-pressure compensation. Cams used for programming can be cut for any type of program desired. Carrier gas flow is controlled by differential controllers to avoid effects of change in column resistance with temperature. An air blower effects rapid cooling at the end of run. (Loe Engineering Co., Dept. Sci890, 232 N. Fair Oaks, Pasadena, Calif.)

■ **LIQUID DETECTION SYSTEM** uses a point sensor that is actuated by the damping effect of a liquid on a vibrating quartz crystal. All circuit elements are housed in a separate unit that may be removed up to 250 ft from the sensor. Liquid-level measurements are said to be repeatable to 1/32 in. Response time of the system is less than 40 msec, and operating temperature range is -320° to +160°F. Components designed for a particular medium are interchangeable. (Trans-Sonics, Inc., Dept. Sci892, Burlington, Mass.)

■ **LIQUID DISPENSER** delivers volumes said to be accurate to ±1 percent and reproducible to ±0.4 percent. Delivery is actuated by depressing a plunger.

Spring-driven return of the plunger refills the syringe. Volume can be set from 1 to 100 percent of syringe capacity. Capacities available are 1, 3, and 10 ml. All glass valves are used. (Microchemical Specialties Co., Dept. Sci891, 1825 Eastshore Highway, Berkeley 10, Calif.)

■ **SPECTRUM ANALYZER** allows for the conversion of signals in the 450 kcy to 100 Mcy/sec range with use of an external oscillator, and automatically scans the difference frequency. Specifications include: variable sweep width, 0 to 100 kcy/sec with 150, 550, 2000, and 10,000 kcy/sec fixed sweep; 50 ohm input impedance; 60 db dynamic range; 20 μ v sensitivity; 0.1 to 30 cy/sec scan rates. (Probescope Co., Dept. Sci894, 8 Sagamore Hill Dr., Port Washington, N.Y.)

■ **MEMBRANE FILTER** of a flexible cellulose material is available in pore sizes ranging from 0.2 to 10 μ . The pores, comprising more than 80 percent of the filter volume, are said to be uniform in size. Direct microscopic examination may be made of the filter. (Scientific Products, Dept. Sci887, 1210 Leon Place, Evanston, Ill.)

JOSHUA STERN
National Bureau of Standards,
Washington, D.C.

PERSONNEL PLACEMENT

CLASSIFIED: Positions Wanted, 25¢ per word, minimum charge \$4. Use of Box Number counts as 10 additional words. Payment in advance is required.

COPY for ads must reach **SCIENCE** 2 weeks before date of issue (Friday of every week).

DISPLAY: Positions Open. Rates listed below—no charge for Box Number. Rates net. No agency commission. No cash discount. Minimum ad: 1 inch. Ads over 1 inch will be billed to the nearest quarter inch. Frequency rate will apply to only repeat of same ad. No copy changes. Weekly invoices will be sent on a charge basis—provided that satisfactory credit is established.

Single insertion	\$40.00 per inch
4 times in 1 year	38.00 per inch

For PROOFS on display ads, copy must reach **SCIENCE** 4 weeks before date of issue (Friday of every week).

Replies to blind ads should be addressed as follows:

Box (give number)
Science
1515 Massachusetts Ave., NW
Washington 5, D.C.

POSITIONS WANTED

Research Assistant, bachelor's degree, 11 years' experience in chemical, animal, physiological procedures. Training varied and flexible enough to learn any assay or instrument analysis. Area location open. Box 200, **SCIENCE**. X

(a) **Ph.D.-M.D.** with radioisotope training; 5 years of anatomy teaching and research at medical school; available for teaching, research or administrative appointment. (b) **Ph.D.-D.V.M.** with 4 years of college teaching experience and pathology research including pharmacology and toxicology of feed additives; prefers research position. \$10-4 Medical Bureau, Inc., Science Division, Burneice Larson, Chairman, 900 North Michigan Avenue, Chicago. X

POSITIONS OPEN

The Canadian Department of Agriculture, Ottawa, requires an

ENTOMOLOGIST

To plan and develop specialized research on the ecology of aquatic insects.

\$8120-\$9800

Qualifications include a Doctor's degree or equivalent in Entomology with specialization in ecology and several years' experience in experimental ecology.

Applications should be filed not later than 10 November 1960.

For details, write to

CIVIL SERVICE COMMISSION, OTTAWA
Please quote Competition Number 60-893.

PHARMACOLOGISTS

Ph.D.'s

Expanding pharmaceutical company near New York City offers opportunities to recent Ph.D.'s with training in biochemical pharmacology.

- ... Permanent positions
- ... Excellent benefit programs
- ... Pleasant suburban area

Submit complete résumé including salary desired

Box 199, **SCIENCE**

POSITIONS OPEN

Medicinal Chemistry

DIRECTOR OF MEDICINAL CHEMISTRY RESEARCH

... will direct activities of **MEDICINAL CHEMISTRY RESEARCH** as key member of our research team. Ph.D. in organic chemistry with ten to fifteen years postdoctoral experience in medicinal chemistry, half of this time in the pharmaceutical industry. Appointee must be self-motivated with proven idea ability and supervisory experience. If you qualify, send personal data to R. G. Jamison, Personnel Manager. Your reply will be held in strictest confidence.

The National Drug Co.
4663 STENTON AVENUE
Philadelphia 44, Pa.

PSYCHIATRIC INSTITUTE AND HOSPITAL—Offers challenging and unusually rewarding opportunities to qualified research scientists. Laboratories in various phases of activation include experimental psychology, neuroanatomy and neurohistochemistry, neurophysiology and socio-environmental studies. Positions available involve varying degrees of responsibility in the planning, development, coordination, and direction of research laboratories and programs. Inquiries are invited from individuals with an M.D. or Ph.D. degree and research competence in the following fields: **Human Genetics, Neuropathology, Virology**. Write Dr. Edward N. Hinko, Director, Cleveland Psychiatric Institute and Hospital, 1708 Aiken Avenue, Cleveland 9, Ohio.
10/28; 11/4

POSITIONS OPEN

CHEMISTS (4)

A Northern New Jersey food processing company has immediate openings in its expanding Technical Research Dept. for:

CHEMISTS (3)

B.S. or M.S. Research in various areas of organic and biochemistry. High academic standing; good background in organic chemistry; experience in proteins, carbohydrates and fats is helpful. 0 to 5 years' experience.

PHYSICAL CHEMIST, Ph.D.

Major duties include research on foods. Knowledge of physics; experience in electronics helpful. Interest in the food field essential; 0 to 5 years' experience.

Salaries commensurate with qualifications and experience. Liberal fringe benefits, 35 hour week. Send complete resume stating age, qualifications and experience.

Box 198, SCIENCE

(a) Head of Research-Development Laboratories of expanding drug firm; high salary; East. (b) Biologist experienced in environmental radio-active contamination, able to organize and direct studies, conduct pre- and postgraduate training, and make field trips; leading medical school, Pacific Coast; around \$10,000. (c) Physiologist for human factors research on effects of whole-body vibration and response; able to originate and develop projects; medical school affiliation if desired; Midwest. (d) Bacteriology-Public Health Professor to develop virology program and teach; ample time for personal research; large university; around \$9000; East. (e) Associate Medical Director, M.D. or Ph.D. degree for expanding drug manufacturer; Pacific Coast. (f) Head of Virology Department qualified in tissue culture for expanding research section of drug-biological firm; around \$10,000; Midwest. (g) Clinical Biochemist to head section in hospital expanding to 600 beds; around \$10,000; East. (h) Physiologist or Neurophysiologist to conduct advanced research at leading university; \$9000-\$11,000; South. (i) Biochemist for cancer and other medical research studies at large university research institute; East. (j) Soil Scientist trained in plant ecology or nutrition for research and teaching in university radiation division; \$7000-\$10,000; West. (Please write for details; also many other positions available through our nationwide service.) \$10-4 Medical Bureau, Inc., Science Division, Burnice Larson, Chairman, 900 North Michigan Avenue, Chicago. X

Pharmaceutical Chemist. Two men with Ph.D. degrees or equivalent training (with or without industrial experience) required in the Pharmaceutical Product Development Department of a large ethical pharmaceutical company in upstate New York. Both positions involve research on pharmaceutical dosage forms. One man should also have a fairly strong background in organic chemistry. Work requires creativity and imagination. Excellent starting salaries and fringe benefits. Expansion of the company presents opportunities for advancement. Box 187, SCIENCE. 10/14, 21, 28

RESEARCH MICROBIOLOGIST

Ph.D. (under 35) or equivalent experience. Interest in IMMUNOLOGY, VIROLOGY, or TISSUE CULTURE desirable but not necessary.

Opportunity with an excellent future in an expanding program in vaccines and chemotherapy with an ethical manufacturer of pharmaceuticals and biologicals.

POSITION OFFERS:

- Profit sharing
 - Liberal fringe benefits
 - Modern laboratories and equipment.
- Send résumé and salary requirements in confidence to:

**DIAMOND LABORATORIES,
RESEARCH DIVISION**
2538 S. E. 43rd Street
Des Moines, Iowa

POSITIONS OPEN

Pharmacology

SENIOR PHARMACOLOGIST

... because of continued growth, our company is seeking an alert scientist to direct a PHARMACOLOGY RESEARCH UNIT. Ph.D. degree in pharmacology plus three to five years in post-doctoral experience, mostly in the pharmaceutical industry. Must be capable of directing work of others. Send résumé and salary requirements to:

R. G. JAMISON
PERSONNEL MANAGER

The National Drug Co.

4663 STENTON AVENUE
Philadelphia 44, Pa.

PHARMACOLOGIST or PHYSIOLOGIST, Ph.D. with several years' experience in the investigation of autonomic drugs. Must have demonstrated ability to do independent research.

BIOCHEMIST, Ph.D. with proven research experience in protein chemistry and enzymology.

Excellent working conditions in a new pharmaceutical plant, fine benefit program with profit sharing. Live near your work in the San Fernando Valley. Write John Permantier, Personnel Manager.

Riker Laboratories, Inc.
Northridge, Calif.

Representative Wanted in your territory. From your desk you can earn a substantial addition to your income. Only written contacts with your clients! Write for particulars and further details to Karl Kuehne Publishing Co. (Verlag Karl Kühne). Vienna 66, P.O.B. 128, Austria. 8/26; 9/30; 10/28; 11/24; 12/30

TECHNICAL SALESMAN

For expanding west coast manufacturer of clinical and analytical instruments. Distribution through major dealer organizations. To Travel primarily east coast and midwest.

Salary + Stock option incentive

MECHROLAB, INC.
1062 Linda Vista Ave.
Mountain View, California

VETERINARY PATHOLOGIST

Supervision of diversified research programs in toxicology and metabolism using large animals, including dogs, primates, economic animals, and so forth; except contribution to design of and coordination of experiments; histopathology evaluation is a primary responsibility.

Salary open to qualified scientist.
Write or call (collect):

Personnel Manager
Hazleton Laboratories, Inc.
P. O. Box 30
Falls Church, Virginia
JEfferson 2-5800

VIRUS RESEARCH

M.D. or Ph.D. interested in infectious diseases, basic studies on mechanisms of infection and on etiology, pathogenesis and epidemiology of virus diseases of infancy and childhood. Excellent facilities. Salary \$6000 per annum. Address

Box 195, SCIENCE

The Market Place

BOOKS • SERVICES • SUPPLIES • EQUIPMENT

DISPLAY: Insertions must be at least 1 inch in depth. Weekly invoices will be sent on a charge account basis—provided that satisfactory credit is established.

Single insertion	\$40.00 per inch
4 times in 1 year	38.00 per inch
7 times in 1 year	36.00 per inch
13 times in 1 year	34.00 per inch
26 times in 1 year	34.00 per inch
52 times in 1 year	32.00 per inch

For PROOFS on display ads, copy must reach SCIENCE 4 weeks before date of issue (Friday of every week).

BOOKS AND MAGAZINES

Your sets and files of scientific journals

are needed by our library and institutional customers. Please send us lists and description of periodical files you are willing to sell at high market prices. Write Dept. A3S, CANNER'S, Inc. Boston 20, Massachusetts

MAMMARY TUMORS IN MICE

AAAS Publication No. 22. By the staff of the National Cancer Institute, National Institutes of Health. F. R. Moulton, Ed.

7 1/4" x 11 1/2", cloth, 20 tables, 52 illus. Published 1945—Now offered at reduced price: \$3.00 prepaid orders by AAAS members, \$3.50 retail.

AAAS

1515 Massachusetts Avenue, NW,
Washington 5, D.C.

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LAWALL & HARRISON

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Shipped to all points via Air Express

For further information write

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The ultimate in Uniform, Healthy, Experimental rats
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VETERINARIANS

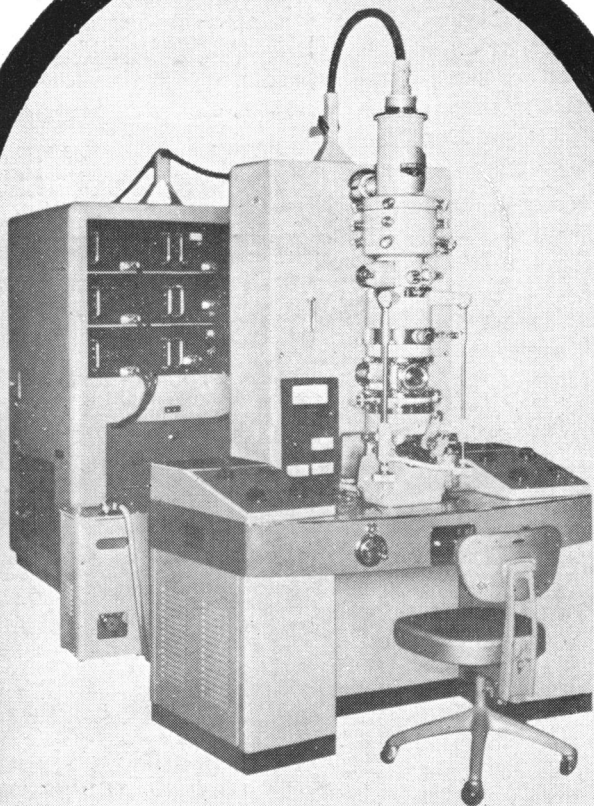
For price list and descriptive brochure—phone or write

Badger Research Corporation
AL 6-6064 P. O. Box 527, Madison 1, Wis.

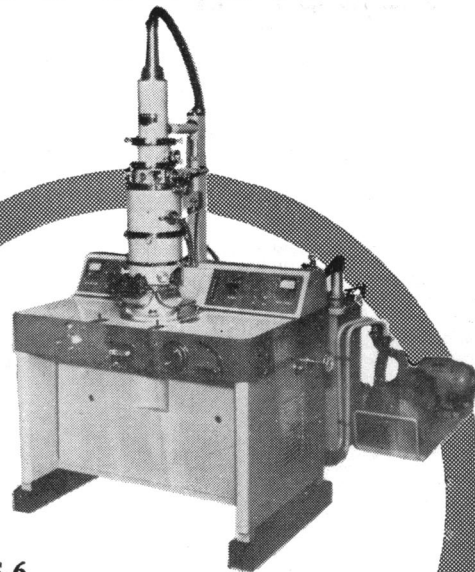
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Reagents-Standards-Comparators
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Controls Handbook Dept. H

HITACHI



HU-11



HS-6

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20 AU resolution.
Suitable for medical purposes
Easy operation

Complete **HITACHI** Electron Microscope For All Scientific Institutes And Laboratories

Direct Magnification : 250,000 Times
Resolving Power : 8 ~ 10 AU

- Accelerating Voltage: 100,75 and 50KV
- Optical System: 3-stage magnetic lens system, 4 turret projection lenses, interchangeable during operation.
- Magnification: (Electronic) 400~250,000X
- Resolving Power: 8~10AU
- Minimum Area of Selected Field: $1 \mu^2$
- Accessories: Specimen heating and cooling devices, X-ray microscope unit, holder for diffraction, etc.

"HITACHI, Ltd. has now developed the new model HU-II, a unit featuring extremely high resolving power and being able to attach many kinds of accessories".

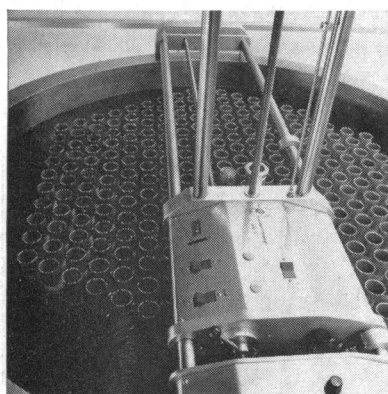
Erb & Gray Scientific, Inc.
854, S. Figueroa St., Los Angeles, California

 **Hitachi, Ltd.**
Tokyo Japan

Cable Address: "HITACHY" TOKYO

NUCLEAR REVIEWS

from
NUCLEAR-CHICAGO



You are looking into the lattice of the Nuclear-Chicago Model 9000 Subcritical Student Training Reactor. Each tube projecting out of the water contains 5 natural uranium slugs 1" in diameter by 8" long. The center tube holds a neutron source to initiate and maintain a chain reaction.

The Subcritical Assembly is designed so students themselves can change the lattice shape or the source position and study the effect of these changes on neutron distribution, multiplication, and scattering. The parts of the 9000 cannot be arranged in any way to make the device critical. The number of neutrons in the assembly never exceeds 6 to 7 times the neutron source strength. No special shielding is required, no operator licensing, no involved safety program.

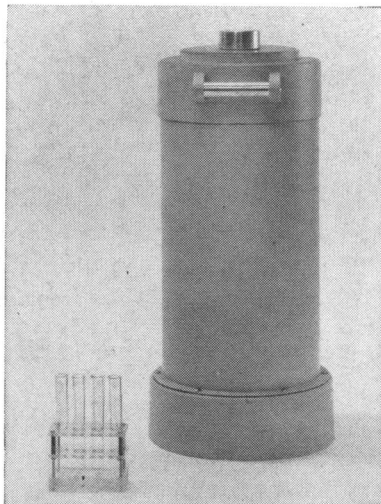
The water moderator allows placement of foils, detectors, and absorbers at any point in the lattice.

An automatic traversing mechanism, like the one shown over the tank, is available to move a detector through the lattice to permit continuous automatic recording of the flux distribution.

The 9000 is in use today in more than 20 colleges and universities. Its low initial cost, simple upkeep, and the fact that its fundamental characteristics are nearly identical with those in a full scale power or research reactor make it an ideal training device. We would be pleased to send you full details.

NEW SCINTILLATION WELL DETECTOR TAKES 20ml SAMPLES

The $2\frac{1}{32}$ " diameter well in conventional scintillation well detectors can be frustratingly small. Suppose you have a large volume sample (blood, for instance) that contains a very small amount of radioactivity. You naturally want to count the largest volume possible to increase the accuracy and speed up the measurement. But, that little well puts an end to efficient thoughts like that. The maximum volume you can insert into the well is about 5 ml.

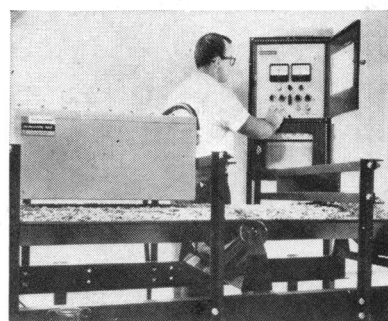


Be frustrated no more! Nuclear-Chicago has designed a new scintillation well detector with a great big 3" diameter crystal with a great big $1\frac{1}{8}$ " diameter well. Our new DS-303 accepts samples with volumes up to 20 ml. Now you can cut the amount of labelled material used in your experiment

by a factor of four, analyze samples with lower specific activities, speed up counting of routine samples, etc., etc.

We have a new 4-page specification sheet describing the DS-303. Write today for your copy.

MOISTURE-DENSITY MEASUREMENTS ON THE PROCESS LINE



Here is a photograph of the first nuclear gauge ever developed to measure moisture content of bulk materials right on a conveyor belt. It is one of four new process control instruments developed in the past year at Nuclear-Chicago.

The four gauges are designed for measurement and control of *moisture* and *density* of materials on conveyor belts, in bins and hoppers, and in tanks, mixers, and blenders.

Each instrument series consists of three basic parts: a measuring head, an electronic read-out, and a recorder/controller which displays the desired information and controls the measured variable. Density measurements make use of gamma reflection and transmission; moisture measurements are accomplished by neutron reflection methods.

We have an 8-page brochure describing these four new gauges. Ask for the "Qualicon" brochure.

 **nuclear-chicago**
CORPORATION
349 HOWARD AVENUE • DES PLAINES, ILLINOIS