images up to 10 feet across
even under oil-immersed objectives

Because of the virtually solar intensity of the Scopicon's high-pressure mercury arc, you can project sharply detailed images up to ten feet across even under oil-immersed microscope objectives. The light's white color demonstrates the various biological stains to their best advantage.

The Scopicon is highly adaptable — can be used with equal convenience for small-group study in a normally lit room, or for exhibition to large groups in a darkened auditorium. Let us send you the brochure describing this versatile instrument.

Scopicon
micro-projection equipment

SCOPICON, Inc.  215 E. 149th ST.  NEW YORK 51, N. Y.
METHODS IN MEDICAL RESEARCH

This series assembles in compact, organized fashion a wealth of data and techniques which never have been published elsewhere or which can be secured only by laborious search through a vast literature and then frequently found to be incomplete.

These volumes and their component sections are edited by authorities in the fields under consideration. Other investigators are then invited to review and comment. The result is a masterly collection of discussions and appraisals covering principles, techniques, results, future trends—even equipment and its sources of supply.

With publication of each succeeding volume, the indispensable character of the series becomes more impressively apparent.

Volume 4—306 pages, 52 illustrations, $7.00, postpaid.

Other Available Volumes in this Series

Volume 1.—Van R. Potter, Ph.D., Editor-in-Chief
Assay of Antibiotics
Circulation: Blood Flow Measurement
Selected Methods in Gastroenterologic Research
Cellular Respiration
370 pages; 83 illustrations. $8.00

Volume 2.—J. H. Comroe, Jr., M.D., Editor-in-Chief
Study of Bacterial Viruses
Pulmonary Function Tests
Assay of Hormonal Secretions
361 pages; 51 illustrations. $6.50

Volume 3.—Ralph W. Gerard, M.D., Editor-in-Chief
Genetics of Micro-organisms
Assay of Neurohumors
Selected Psychomotor Measurement Methods
Study of Peptide Structure
312 pages; illustrated. $7.00

Please send books checked, postpaid.

The Year Book Publishers, Inc.,
200 East Illinois Street, Chicago 11, Illinois

Methods in Medical Research

- Remittance Enclosed  - Payment Plan Desired

- Volume 1. $8.00
- Volume 2. $6.50
- Volume 3. $7.00
- Volume 4. $7.00

Name ..................................................  Street ..................................
City ........................................ Zone .. State .....

October 26, 1951
Laboratories have at their command from Fisher Scientific Company all of their day-to-day requirements and a large number of modern instruments, apparatus and chemical reagents not obtainable elsewhere.

Fisher Scientific Company

PITTSBURGH • NEW YORK • WASHINGTON • ST. LOUIS • MONTREAL

717 Forbes (19) • 635 Greenwich (14) • 7722 Woodbury (Silver Spring, Md.) • 2850 S. Jefferson (18) • 904 St. James

NEW YORK • MONTREAL • ST. LOUIS • WASHINGTON • PITTSBURGH

Comprehensive Stocks of Laboratory Supplies at
Now available...

Adenosine Triphosphate (ATP); Amygdalin; Amylase; Animal Leechin; Ascorbic Acid Oxidase; Bacitracin; BAL; Biotin cryst.; Caffeic Acid; Carotene cryst.; Catalase; Cellulase; Chlorogenic Acid; Chorionic Gonadotropin; Circulatory Hormone; Colchicine; Cytidyl Acid; Cytochrome C; Dehydroascorbic Acid; Dihydroxyacetone; Dihydroxyphenylalanine (DOPA); Dipryridyl; Edestin; Emulsion; Erythritol; N-Ethyl-piperidine; Fibroin; Folic Acid; Galacturonic Acid; Gentisic Acid; Girard Reagents P and T; Gladin; Glucose Pentacetate; Glucuronic Acid; Glyceraldehyde; Glycogen; Heparin; Hordenine; Hydroxydase; 2-Hydroxyadipaldehyde; Humulon; Isoascorbic Acid; Isopropylarlenol; Kojic Acid; Kynurenine Acid; Lanthionine; Lipase; Lysozyme; Lyroxine; Malononitrile; Maltase; Melitoxine; Mesobilirubinogen; Muscle Adenylic Acid; Myanesin; p-Nitrophenylphosphate; Nucleoprotein; Oecinol; Pancreatin; Pangenin; Pantotetynol Alcohol; Penicillinase; Peroxidase; Phenazine; Phenylpyruvic Acid; Phlorizin; Phosphorylase; Piperin; Porphyrindene; Protamines; Pyridoxal; Pyridoxamine; Pyrocathectic Acid; Pyruvic Aldehyde; Ribonucleic acid; Saccharic Acid; Salmine; Serine Phosphoric Acid; Spermidine; Spermene; Thioacetic Acid; Thioctosine; Thyroxin; Trigonellin; Triphenyltetrazolium Chloride; Tripryridyl; Trypsinogen; Tyrosinase; Tyrothricin; Urease; Uricase; Uridine; Vitellin; Xanthosine.

Ask us for others!

DELTA CHEMICAL WORKS
23 West 60th St. New York 23 N.Y.
Telephone Plaza 7-6317

photomicrography via "Visicam"

Readily attachable to any standard microscope, the versatile "Visicam" provides easy, economical 35mm black & white or color photomicrographs of the finest quality.

Available with roll-film carriers or the popular "Single-Shot" camera back.

details on request

Erb & Gray
854 South Figueroa Street
Los Angeles 17, California

BLOOD PRESSURE
TRANSACTIONS OF THE FIFTH AND FINAL MEETING
209 PAGES PLUS A COMPLETE INDEX OF ALL FIVE VOLUMES
$3.75

EDITORS
BENJAMIN W. ZWEIFACH
EPHRAIM SHORR

EACH MEETING OF THE CONFERENCE GROUP COVERED A DIFFERENT PART OF THE SUBJECT. THIS VOLUME COMPLETES THE SERIES.

A JOSIAH MACY, JR. FOUNDATION PUBLICATION

- WRITE FOR OUR COMPLETE LIST OF PUBLICATIONS - ORDERS FOR AN ENTIRE SERIES OR FOR FIVE OR MORE BOOKS CARRY A 20% DISCOUNT.

P. O. BOX 575, PACKANACK LAKE, N. J.
Get the Sensational New BECKMAN Model N pH METER from WILL

You’ll want this new, completely portable, battery-operated pH instrument... the pH meter that is low in price, light in weight, compact in design, and amply rugged to be used indoors, outdoors—anywhere—without depending on outside power circuits.

NEVER BEFORE have advantages like these been combined in a single pH instrument!

- Accuracy to better than 0.05 pH.
- Low operating cost—less than 2¢ per hour.
- Built-in temperature compensation—0° to 100° C.
- Fast warm-up—less than 10 seconds.
- “Check Pointer” eliminates need for frequent buffer standardization.
- Batteries easily checked with panel controls—no need to disassemble instrument.
- Same wide variety of electrodes as Models M and H-2 Beckman pH Meters.
- By far the most rugged overall construction of any pH meter.

Completely portable... extremely compact... really rugged... and low in price!

16182T — pH METER, Beckman Model N-1; single case with attached handle, Dual scale meter 0-8 and 6-14 pH. With Glass and Reference Electrodes, 50 ml. Beaker, pH 7 Buffer Solution and KCl Solution ................... $180.00

16183T — pH METER, Beckman Model N-2; same as No. 16182T, but with hinged cover to contain accessories provided in No. 16182T, plus Thermometer and polyethylene bottles for buffer and water ................... $195.00

Electrode support rotates alongside case, for easy carrying. Use in horizontal or vertical position.

Order NOW from WILL... authorized supplier of Beckman instruments... and assure shipment from our first deliveries from the manufacturer.

If you want further particulars, ask us for Beckman Bulletin 263. Write, wire, phone or teletype Dept. (SC), our nearest office-warehouse listed below.

N. Y. Exposition Chemical Industries November 26—December 1st.

Visit us in Booths 226 and 228

- ATLANTA 3, GA. SOUTHERN SCIENTIFIC CO.
- BUFFALO 5, N. Y. BUFFALO APPARATUS CORP.
- NEW YORK 12, N. Y. WILL CORPORATION
- BALTIMORE 1, MD. WILL CORPORATION of Md.
AMINO ACIDS

- Acetyl DL-tryptophane
- DL-alpha alanine
- Beta alanine
- L-alanine
- L-arginine Hydrochloride
- D-asparagine monohydrate
- L-asparagine
- D-aspartic acid
- DL-aspartic acid
- L-aspartic acid
- Betaaine Hydrochloride
- L-carnosine
- Creatin (anhydrous)
- Creatin
- DL-cystathionine
- L-cysteine Hydrochloride
- L-cysteine (free base) C. P.
- L-cystine
- 3,5-diiodotyrosine
- L-Dopa
- DL-Dopa
- Djenkolic acid
- L-glutamic acid
- Glutamine
- Glycine (aminoacetic acid)
- Glycine ethyl ester Hydrochloride
- Glycylglycine
- DL-histidine Hydrochloride
- L-histidine Hydrochloride
- L-histidine (free base)

**SEE SCIENCE NOVEMBER 23 ISSUE FOR ADDITIONAL LISTINGS**

**A READY REFERENCE**

That will Save Time For You

Use this catalog as a “one stop” source of Amino Acids, Vitamins, Carbohydrates, Adenylates, Nucleates, Purines, Pyrimidines, Enzymes, Microbiological and Bacteriological Media, Complete Animal Test Diets and Ingredients for investigational use.

**GBI**

60 LABORATORY PARK

CHAGRIN FALLS, OHIO

---

**A MIGHTY LIGHT FROM A SMALL SOURCE**

"POINTOLITE" LAMPS

Laboratory workers rely on Pointolite’s dependable, steady light that requires no attention after starting. Illumination is an intensely brilliant, remarkably white, “point of light”. Designed to fit scientific optical instruments for photographic and projection purposes. Lamps in various candle-power sizes and necessary auxiliary equipment are described and listed in Bulletin 42-S.

JAMES G. BIDDLE CO.

ELECTRICAL & SCIENTIFIC INSTRUMENTS

1316 ARCH STREET • PHILADELPHIA 7, PENNA

---

**HELLIGE BLOOD SUGAR COLORIMETER**

Employing Non-fading Glass Color Standards

Hellige Blood Sugar Colorimeters are furnished with non-fading glass color standards for precise glucose determinations by the picric acid or Folin-Wu method. A reliable diagnostic aid for the practitioner as well as the specialist, these low priced instruments are sturdy in construction — Simple to Operate — Scientific in Method — Accurate in Result. Fingertip blood can be used in each of these micro procedures.

Write for Catalog No. 360

HELLIGE, INC.

3718 NORTHERN BLVD.

LONG ISLAND CITY 1, N. Y.

[Contact information for additional listings]
THE INTERNATIONAL ULTRA-THIN SECTIONING MICROTOME is the first complete instrument developed particularly for cutting sections in the ultra-thin range. Designed to meet the exacting requirements of the electron microscopist, it is equipped with a high precision worm gear reduction feeding mechanism designed to advance the specimen in increments of \( \frac{1}{20} \) micron and to permit the selection of thickness from \( \frac{1}{20} \) to 1 micron. Also available is a special holder for methacrylate embedded specimens and a glass knife holder. For a discussion of the effectiveness of this instrument and the technique used see “Development and Use of the Minot Rotary Microtome for Thin Sectioning” by Geren & McCulloch, Experimental Cell Research, February, 1951.

THE INTERNATIONAL MINOT ROTARY MICROTOME, STANDARD MODEL, basically the same instrument as described above, but designed for the rapid routine serial sectioning of paraffin-embedded specimens. Extremely accurate in construction, it is equipped with a feeding mechanism permitting sectioning in any desired thickness from 2 microns to 16 microns, in increments of 2 microns. The excellent design and precision construction of this instrument are attested by the fact that they form the basic design of the Ultra-thin Sectioning Model.

INTERNATIONAL SAFETY RAZOR BLADE HOLDER. In addition to the standard Microtome knives currently available, the International Standard Model Microtome will also accommodate this Safety Razor Blade Holder. Excellent for routine sectioning, it holds the standard Gillette type Microtome blades and eliminates bothersome honing of knives. Furnished complete with screw driver, extra screws, ten blades and leather-bound box.

Prompt shipment on all items from your Laboratory Apparatus Supply Dealer. Write us for descriptive Bulletin and Article Reprints.

INTERNATIONAL EQUIPMENT CO.
1284 SOLDIERS FIELD ROAD, BOSTON 35, MASS.
HUMAN SKELETONS
Natural Bone and "Everlasting" Rubber Models.

Well-mounted preparations at low prices, as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skeleton, chromed</td>
<td>$220.00</td>
</tr>
<tr>
<td>Skeleton, in cabinet</td>
<td>$230.00</td>
</tr>
<tr>
<td>Skeleton, articulated</td>
<td>$125.00</td>
</tr>
<tr>
<td>Skeleton, muscular</td>
<td>$350.00</td>
</tr>
<tr>
<td>Skeleton, muscular, rt</td>
<td>$295.00</td>
</tr>
<tr>
<td>Skeleton, fluorescent</td>
<td>$375.00</td>
</tr>
<tr>
<td>Skeleton, fluorescent, rt</td>
<td>$315.00</td>
</tr>
<tr>
<td>&quot;Everlasting&quot; rubber</td>
<td>$98.75</td>
</tr>
<tr>
<td>Skull, articulated</td>
<td>$50.00</td>
</tr>
<tr>
<td>Skull, &quot;Everlasting&quot;</td>
<td>$32.50</td>
</tr>
<tr>
<td>Skeleton cabinet, metal</td>
<td>$45.00</td>
</tr>
<tr>
<td>Skeleton stand, metal</td>
<td>$35.00</td>
</tr>
<tr>
<td>Skeleton cover, plastic</td>
<td>3.25</td>
</tr>
</tbody>
</table>

Limited stock! Order promptly!

New York Scientific Supply Co.
28 West 30th St. New York 1, N.Y.

INDOLE-3-ACETIC ACID
for research on plant hormones
NOW AVAILABLE

Special Chemicals Division
Winthrop-Stearns, Inc.
1450 Broadway, New York 18, N.Y.

HORMONE ASSAYS
ACTH * Growth * Gonadotropes
Estrogens * Androgens
Corticoids * Progesterone
Others

HYPOPHYSECTOMIZED RATS
ENDOCRINE TOXICITY TESTS
Write for details

ENDOCRINE LABORATORIES
OF MADISON, INC.
5001 W. BELTLINE HIGHWAY • MADISON, WISCONSIN
A water soluble ion exchanger of unusual interest to researchers in the biological, medical and chemical sciences.

**SEQUESTRENE**

available as the pure acid, di, tri and tetra sodium salts of

\[
\text{ETHYLENEDIAMINE TETRA ACETIC ACID} \\
\text{HOOCCH}_2\text{NCH}_2\text{CH}_2\text{NCH}_2\text{CH}_2\text{COOH} \\
\text{HOOCCH}_2\text{CH}_2\text{COOH}
\]

SEQUESTRENE is powerful chelating agent for the alkali earths and heavy metals, forming water soluble complexes of high stability. For example, SEQUESTRENE will dissolve calcium oxalate and many other poorly soluble inorganic compounds, will keep iron dissolved in alkaline solution, deactivate trace metals.

SEQUESTRENE permits the investigation and control of a wide variety of effects involving metal ions; it is a new chemical tool with still unexplored possibilities.

SEQUESTRENE has proven useful as a blood anticoagulant and preservative—in treatment of renal lithiasis—as a detoxicant for heavy metals—in protein fractionation—as a fungicide and germicide potentiator—in deactivation and activation of enzyme systems—formulation of liquid plant nutrients—as a fission product decontaminant—in separation of rare earths—as an analytical reagent for alkali earths and heavy metals (extensive bibliography available)—as an intermediate for pharmaceuticals, plasticizers, polymerization catalysts—as a stabilizer for ascorbic acid, formaldehyde, cysteine, sulfites, hydrazine, soaps and fats, aromatic amines and other trace metal sensitive materials such as rubber latex, many biological extracts and food products—and in flotation, agricultural chemicals, detergents, textiles, metallurgical and other industries.

Samples of SEQUESTRENE and literature are available on request without charge or obligation.

* REGISTERED TRADEMARK

**ALROSE CHEMICAL CO.**

Manufacturing and Research Chemists

BOX 1294 • PROVIDENCE 1, RHODE ISLAND

October 26, 1951
NOW! "Easy Chair" MICROSCOPY with Bausch & Lomb Dynoptic LABROSCOPES

A quick setting of the coarse adjustment...then all controls are operated with the hands at rest on the table. Fine adjustment is controlled by a knob only three inches above the table top; critical focus is more quickly, more easily achieved, with the operator completely relaxed. The hand moves easily from fine adjustment to mechanical stage knobs.

Comfort and convenience have influenced Labroscope design throughout—providing the fatigue-free operation necessary for more thorough examinations over prolonged periods—assuring full benefit of the finest laboratory microscope ever made.

WRITE for a free demonstration and complete catalog literature. Bausch & Lomb Optical Company, 642-15 St. Paul Street, Rochester 2, N. Y.