

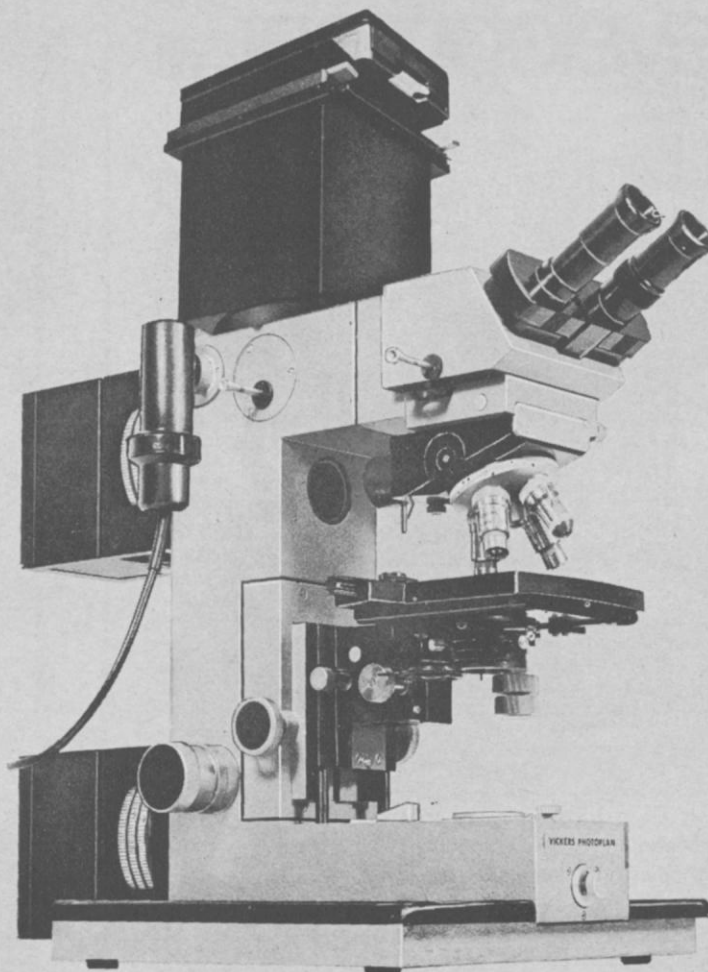
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18 SEPTEMBER 1970

# ULTIMATE




The new Vickers M41 Photoplan is the ultimate ... the infinitely universal microscope/camera system. With an M41 in your laboratory you could use any of these techniques today:

**Transmitted light**—Bright field, fluorescence, phase fluorescence, phase contrast, polarized light, Nomarski, macro, double refracting interference.

**Reflected light**—Nomarski, bright field/dark field, fluorescence, polarized light, micro-hardness, shearing measurement, surface finish, macro.

The M41 has superior, critical photometric capabilities. 100% of the image forming light can be directed to the monitoring system. Integral options permit measurement of the whole field, or discrete portions of 1/10, 1/100 and 1/500 of the field of view. **We want you to have the whole, truly amazing story of this infinitely universal new system. Write for catalog 31-2340, now.**

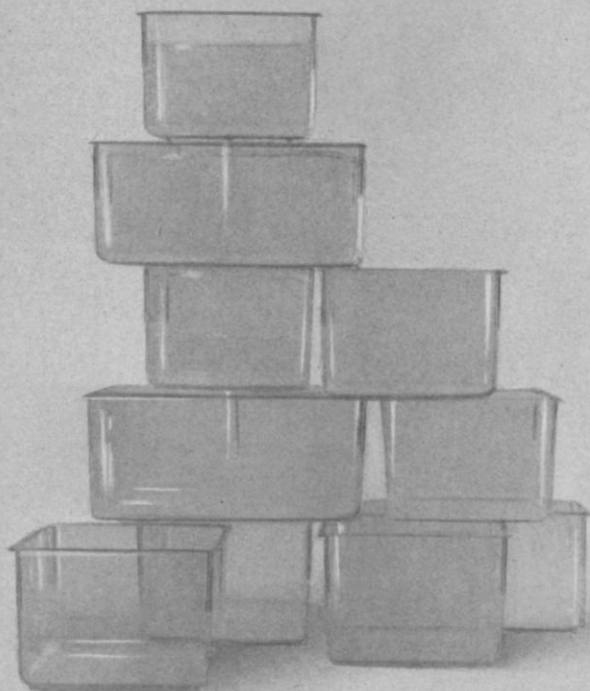
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SCIENTIFIC INSTRUMENT DIVISION

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engineered by research products.  
 We started by rethinking the whole idea of small animal housing. The only 'standard' we retained is the size.  
 A new mold – labored over long and lovingly – produces cages of unusual clarity, with excellent visibility.  
 New stacking posts increase stability and strength of the side walls.  
 They do not stick or jam.  
 And permit 20% more cages in transit or storage than 'standard'.  
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 No sticking, bumping, jiggling when you slide them into a cage rack.  
 research products is a new company of people experienced in plastics engineering and animal cage development.  
 Further, we manufacture our own cages. Which puts us in control of quality, inventory and shipping.  
 And – if standard sizes don't suit your needs – our custom work is marked by the same excellence.  
 You're dealing with the source.



**research products**

research products inc.  
 376 North Avenue

## Personnel Placement

**POSITIONS WANTED:** 40¢ per word, minimum charge \$10. Use of Box Number counts as 10 additional words. Payment in advance is required. These rates apply to individuals only. Personnel agencies and companies take display rate for all advertising.

**POSITIONS OPEN:** \$21 per quarter inch (minimum \$84) for publishers 6 point type (12 lines per inch). All ads using larger than 6 point type will be billed as display ads at \$25 per quarter inch (minimum \$100). No charge for Box Number. Rates net. No agency commission allowed for ads under 4 inches. No cash discount. Ads over 1 inch will be billed at the nearest half inch. Payment in advance is required except where satisfactory credit has been established.

COPY for ads must reach SCIENCE 4 weeks before issue date (Friday of every week). Send copy for Personnel Placement advertising to

SCIENCE, Room 211  
 1515 Massachusetts Ave., NW  
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Replies to blind ads should be addressed as follows:

Box (give number)  
 SCIENCE  
 1515 Massachusetts Ave., NW  
 Washington, D.C. 20005

### POSITIONS WANTED

**Biochemist, Ph.D.** (1967), 33, minored in microbiology, skilled in all biochemical research techniques, publications. Desires academic, governmental, or industrial position. Box 336, SCIENCE. X

**Biochemist-Microbiologist, Ph.D.**, 6 years of research-supervisory experiences in industrial biological laboratory and 4 years of research experience in university, seeks opportunity to examine chemical and microbial products on lipid in animal. Desires research position in industry or others. Box 337, SCIENCE. X

**Editor-Writer**, biosciences with 20 years of magazine and book experience, available as consultant or to engineer projects. Box 338, SCIENCE. X

**Geneticist, Ph.D.**, 34, 8 years of university experience. Disgusted with "publish or perish" inequities, desires position in institution where innovative teaching and academic standards are paramount. Also general, cellular, evolutionary, and invertebrate biology. Box 339, SCIENCE. 9/25

**Protein Chemist, M.S.**, biochemistry. Seeks research/development position where extensive experience will be utilized. Have research background: Protein, carbohydrate structure; carbohydrate metabolism; enzymology; steroids. Skilled in wet and instrumental analysis. Publications. East Coast preferred. Available fall 1970. Box 333, SCIENCE. 9 18

**Teaching, College or University, Organic Chemist, Ph.D.**, interested in directing the elementary chemistry program. Three years of university teaching; 10 years of industrial experience; 10 years of teaching college-level chemistry in preparatory school. Highly interested in chemistry for the nonscientist, and has developed excellent laboratory experiments in synthesis and in stereochemistry, including stereoselectivity of bacteria. Available summer or fall 1971. Box 340, SCIENCE. X

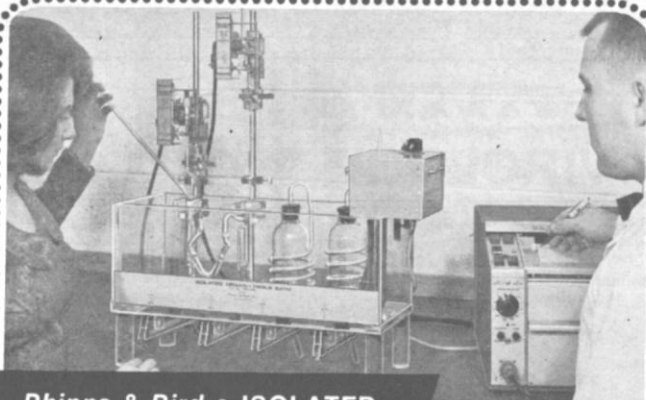
### POSITIONS OPEN

#### BIOCHEMISTS AND PHARMACOLOGIST

For southern New England university affiliated State mental hospital research laboratory. Technicians, B.A., (2) \$8623; Research Associate, M.S., (2) \$9601; Research Scientist, Ph.D., (2) \$12,383-\$20,128.

Box 331, SCIENCE

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***A compact system designed to aid  
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**BIO-ASSAY SYSTEM TRANSDUCER—RECORDER**

■ High Sensitivity ■ Precise Temperature Control ■ Allows Quick Attachment of Tissue ■ Tissue Can Be Washed Without Exposure or Chamber Can Be Drained ■ Writing Levers Available for Mechanical Operation

**PHIPPS & BIRD, INC.**



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There are only two kinds of scientific equipment: the kind you need and the kind you don't.

We are the marketplace, the exchange, the center for both.

Write us or call now for the latest list of what we've got. Or tell us what you'd like us to take away.

Labex. (312) 787-0800

**Labex**

Laboratory Instrument Exchange, Inc.  
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**Major research  
programs to advance  
the state of the art of  
physical oceanography  
require two  
outstanding scientists  
to lead project teams**



## Research Physicist

— Airborne Remote

**Sensing:** As Chief of the Applied Physics Branch and Principal Investigator attached to the Applied Sciences Division of the Office of Research and Development, you will be expected to conceive, justify, plan and organize a continuing Coast Guard research program of an advanced nature into problems of interest to the Coast Guard, particularly regarding use of airborne remote sensing techniques in determining oceanic and Arctic sea ice parameters. Techniques considered shall include, but not be limited to, side-looking radar, optical photography, infrared imagery, low light level TV, microwave radiometry and satellite imagery. You will form and lead a team of scientists and technicians in performing this research, organize and lead research cruises, and employ a number of Coast Guard units in observation and other field programs.

## Oceanographer:

As Chief of the Applied Physical Oceanography Branch attached to the Applied Sciences Division of the Office of Research and Development, you will act as a Principal Investigator; guiding a research team in a continuing program of advanced research into problems of interest to the Coast Guard, particularly near shore currents and water motion fluctuations. You will be expected to conceive, plan and organize the program. You will also be responsible for development of programs to be carried out by a number of Coast Guard units in your behalf, and for devising and developing specialized equipment and techniques needed to accomplish your objectives.

**General Qualifications:** You will have nationally recognized competence in your field with extensive field and laboratory training and a broad, progressive academic background in physics, engineering or oceanography equivalent to an advanced degree, preferably at the Ph.D. level. You will have demonstrated the ability to report on research problems by having published in major scientific journals. These are GS-14 positions with salary in the range of \$19,645-\$25,538 p/a.

Your detailed reply will be held in the strictest confidence.



Comdt., Civilian Personnel Officer  
(PC)

**U.S. COAST GUARD**

400 S.W. 7th Street  
Washington, D.C. 20951

An Equal Opportunity Employer

## POSITIONS OPEN

### BIOCHEMIST

An immediate opening exists for a Ph.D. Biochemist, recent graduate or with post-doctoral experience and interest in intermediary metabolism, particularly carbohydrate and/or lipid area; in vivo experience preferred. To participate in research program involved in the development of biochemical models of disease for use in evaluating novel therapeutic agents. Excellent facilities and equipment available. Send résumé including salary history to:

**BOX 345, SCIENCE**

*An Equal Opportunity Employer*

## University of Guelph Dean of the College of Biological Science

The University of Guelph is establishing a College of Biological Science as of January 1, 1971. Applications are invited for the position of Dean of the College.

The new College requires the leadership of a recognized scholar with broad knowledge of the life science and capacity for imaginative leadership. Experience in administration of academic and research programs is desirable. The University nevertheless expects its senior academic officers to continue in scholarly work.

The salary for the position is negotiable.

Enquiries and applications, which will be treated in confidence, should be addressed to the Vice-President, Academic, University of Guelph, Guelph, Ontario.

## POSITIONS OPEN

**CYANAMID**

### VIROLOGIST

We are seeking an experienced Virologist Ph.D. to head a group charged with finding and developing drugs for the treatment of viral diseases of man. Qualifications required include at least 5 years postdoctoral experience, strong background in biochemistry of viral infections processor; experience in animal testing desirable. Liberal benefits and excellent working conditions. Location within 45 minutes of New York City. Please send resume and salary history to: Mr. Fred J. Rella.

**Lederle Laboratories  
American Cyanamid Company**

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## BIOCHEMIST

MERCK SHARP & DOHME is currently seeking an individual with a Ph.D. in Biochemistry with 5 years of postdoctoral experience in cellular metabolism involving protein and nucleic acid synthesis and elucidation of mechanism of activity of biologically active compounds. Knowledge of virology helpful, but not necessary. Applicant must possess ability to work in a group effort.

You can expect a salary commensurate with experience, a complete program and an uncommon opportunity in a stimulating, professional atmosphere.

Please send summary of training and experience, date available, and minimum salary expected to:

**MR. HENRY J. HURST**



**MERCK SHARP & DOHME**

Division of MERCK & CO., INC.  
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**CHEMIST**—Excellent opportunity for capable individual to develop and perform instrumental techniques for industrial hygiene and crime detection programs in a modern progressive public health laboratory; M.S. or Ph.D. desirable; \$11,790 to \$12,634 to start, depending on qualifications; liberal fringe benefits. **CONTACT—**Personnel Department Room 706—City Hall Milwaukee, Wis. 53202 (414) 276-3711, Ext. 751

### VETERINARY PRODUCTS R/D—PRODUCTION

Expanding manufacturer requires on **ENDOCRINOLOGIST** to supervise production and develop new products and one **MICROBIOLOGIST** to assume responsibility for a research project. Plants located near large midwestern university. Please furnish curriculum vitae emphasizing work experience.

**Box 341, SCIENCE**

Position open now for **Research Assistant** in study of experimental epilepsy in cats. Requires knowledge of neurophysiology and involves chronic implantation of electrodes with stereotaxic methods, stimulation, injection, cooling, recording, and analyzing. Send inquiries to **John G. Zoll, M.D., Director of Margaret Drullard Hubbell Research Center for Epilepsy, E. J. Meyer Memorial Hospital, 462 Grider St., Buffalo, New York 14215.**

## POSITIONS OPEN

### UNIVERSITY OF OTAGO

#### Dunedin, New Zealand LECTURER OR SENIOR LECTURER IN GEOLOGY (GEOPHYSICS)

Applications are invited for the above-mentioned positions with special interests in geophysics.

#### Salary Scales

Lecturer—\$NZ4,300 × \$200 to \$5,500 per annum.

Senior Lecturer—\$NZ5,600 × \$200 to \$7,200 per annum with a bar at \$6,600 per annum.

A particularly well-qualified candidate could be appointed at a higher level. (Note: \$NZ100 equals £46.13.4. stg; \$US112, \$A100)

Further particulars are available from the Secretary-General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London, WC1H 0PF, or from the Registrar of the University.

Applications close in New Zealand and London on 1 November 1970.

### GRADUATE STUDY

#### POSTDOCTORAL RESEARCH FELLOWSHIPS at the Weizmann Institute of Science

Rehovot, Israel

Academic Year 1971/72

A number of postdoctoral fellowships (Junior and senior level) are available to candidates from all countries for research in the natural sciences. They are normally of 12 months' duration.

Facilities are available for research in:

Applied & Pure	Chemistry
Mathematics	Electronics
Biochemistry	Experimental Biology
Biodynamics	Genetics
Biological Ultrastructure	Isotope Research
Biophysics	Nuclear Physics
Cell Biology	Plant Genetics
Chemical Immunology	Polymer Research
Chemical Physics	

Information and application forms may be obtained from the Academic Secretary, Weizmann Institute of Science, Rehovot, Israel.

Applications will be accepted until 15 November 1970.

Announcements of awards will be made in February 1971.

### POSTDOCTORAL TRAINEESHIPS IN CLINICAL CHEMISTRY

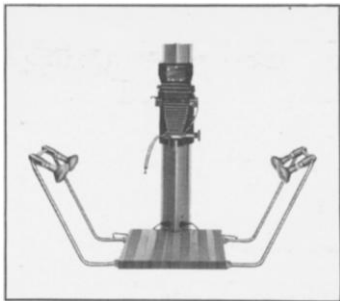
are available 1 July 1971, to recent Ph.D. biochemists and chemists in a program designed to train clinical chemists for positions in research-oriented hospitals. The appointments are for 2 years, with a stipend of \$6000 to \$7000 per annum (depending upon postdoctoral experience), plus a dependency allowance. *Apply before 31 December 1970, to A. Kaplan, Ph.D., Biochemistry Department, University of Washington, Seattle, Wash. 98105.*

### ANNOUNCEMENT

#### CLASSIFICATION SOCIETY (NAB)

The 1971 Annual Meeting will be held at the University of Western Ontario, London, Canada, 5-7 May 1971. Please contact Dr. J. B. Phipps (above address). Local Arrangements Chairman, or Dr. Paul Switzer, Program Chairman, Dept. of Statistics, Stanford University, Stanford, California, for further details.



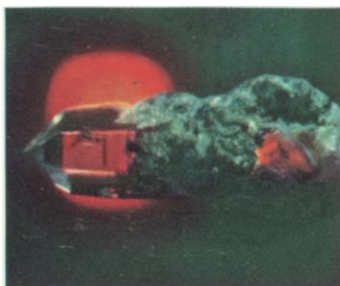


"Polaroid" and "Polacolor"®

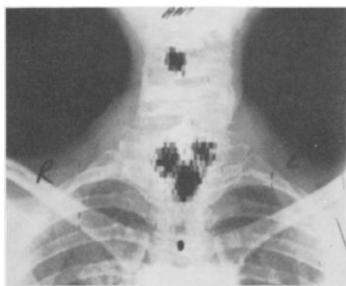
**The Polaroid MP-3 Multipurpose Land Camera.** It's so versatile, Polaroid still hasn't found out all it can do.

It uses 14 different Polaroid Land films for pictures on the spot (plus most wet-process films); 5 interchangeable lens and shutter combinations; and changeable backs for a variety of film sizes.

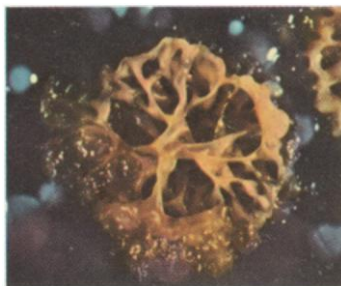
We've shown only a few of its uses. But for more information, or a demonstration, write: Polaroid Corporation, Industrial Marketing, Dept. 26-162 Cambridge, Mass. 02139. If you find a brand new use for the MP-3, we won't be a bit surprised.



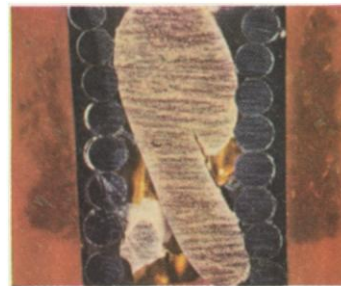
Quartz crystal on pyrite.  
Polacolor Type 58 film.



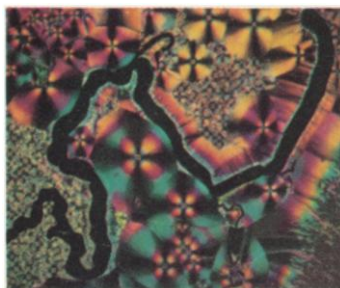
Copy of X-ray with isotope scan overlay.  
Type 107, 3000-speed film.



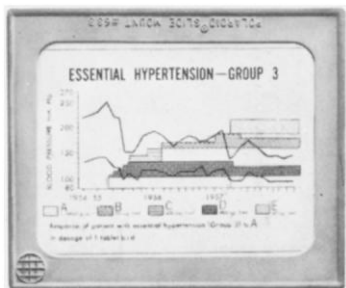
Macro photograph, bacteria culture.  
Polacolor Type 108 film.



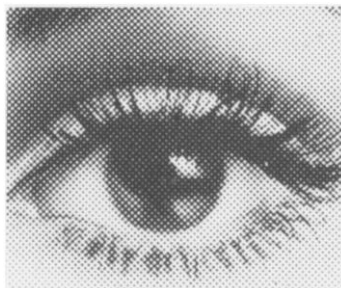
Macro photograph section of wire nut.  
Polacolor Type 58 film.



Photomicrograph, crystals under polarized light.  
Polacolor Type 58 film.



Slide for presentation, high contrast.  
Type 146L projection film.



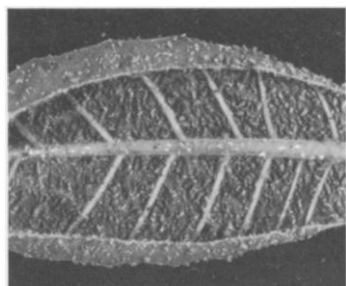
Instant screened print for printing reproduction.  
Type 51 high contrast film.



Coins, circa 100 A.D., catalog illustration.  
Polacolor Type 108 film.



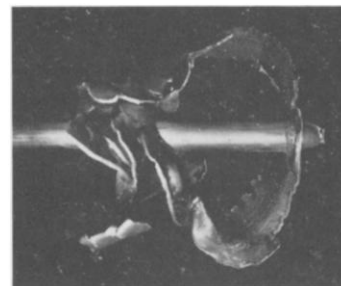
Sea horse specimen for collection record.  
Polacolor Type 58 film.



Tobacco bud leaf showing aphid damage.  
Type 107, 3000-speed film.



Perforated ulcer of the stomach.  
Polacolor Type 58 film.



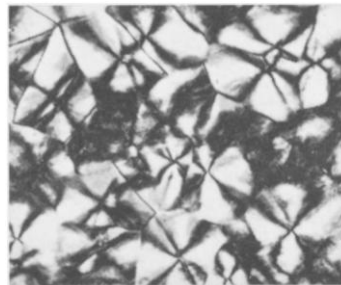
Tensile fracture of copper wire (positive).  
Type 55 Positive/Negative film.



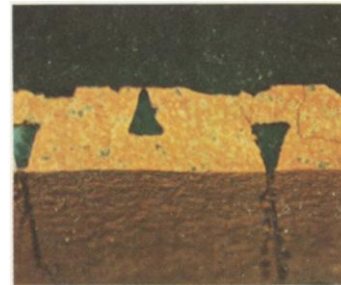
Biology study slide, continuous tone.  
Type 46L projection film.



Handwriting study for legal investigation.  
Polacolor Type 58 film.



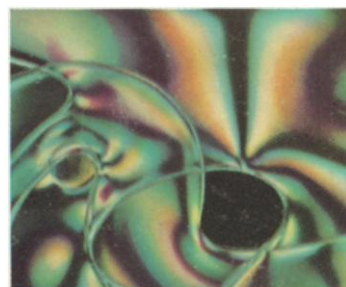
Photomicrograph, structure of nylon fiber.  
Type 47, 3000-speed film.



Macro photograph section of battery grid.  
Polacolor Type 58 film.



Copy of fingerprint record (negative).  
Type 55 Positive/Negative film.



Stress analysis under polarized light.  
Polacolor Type 58 film.



Diode fractures, for QC report.  
Polacolor Type 108 film.



Macro photograph, insect mouth structure.  
Polacolor Type 58 film.

# AO announces the first frost-free cryostat.

## It's a hot one.

The new AO® Cryo-Cut includes all the conveniences you have wanted in a cryostat microtome. Precision sectioning with no ice, no condensate, no dripping. It's frost-free.

Desired temperature operating range between  $+10^{\circ}$  to  $-30^{\circ}$  is readily maintained with the door open.

You will appreciate the additional elbowroom offered by the 18-in. width of the microtome well; the sliding glass door with built-in heater to eliminate condensation; the conveniently located fast-feed control; new easy-to-clean procedure without time consuming messy defrosting; clear view control panel and many other features that help make the new AO Cryo-Cut the most convenient precision frozen sectioning instrument of our time.

Write for all the facts, or better still, see a demonstration. Ask your AO Representative.

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 **AMERICAN OPTICAL  
CORPORATION**  
SCIENTIFIC INSTRUMENT DIVISION • BUFFALO, N.Y. 14215

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