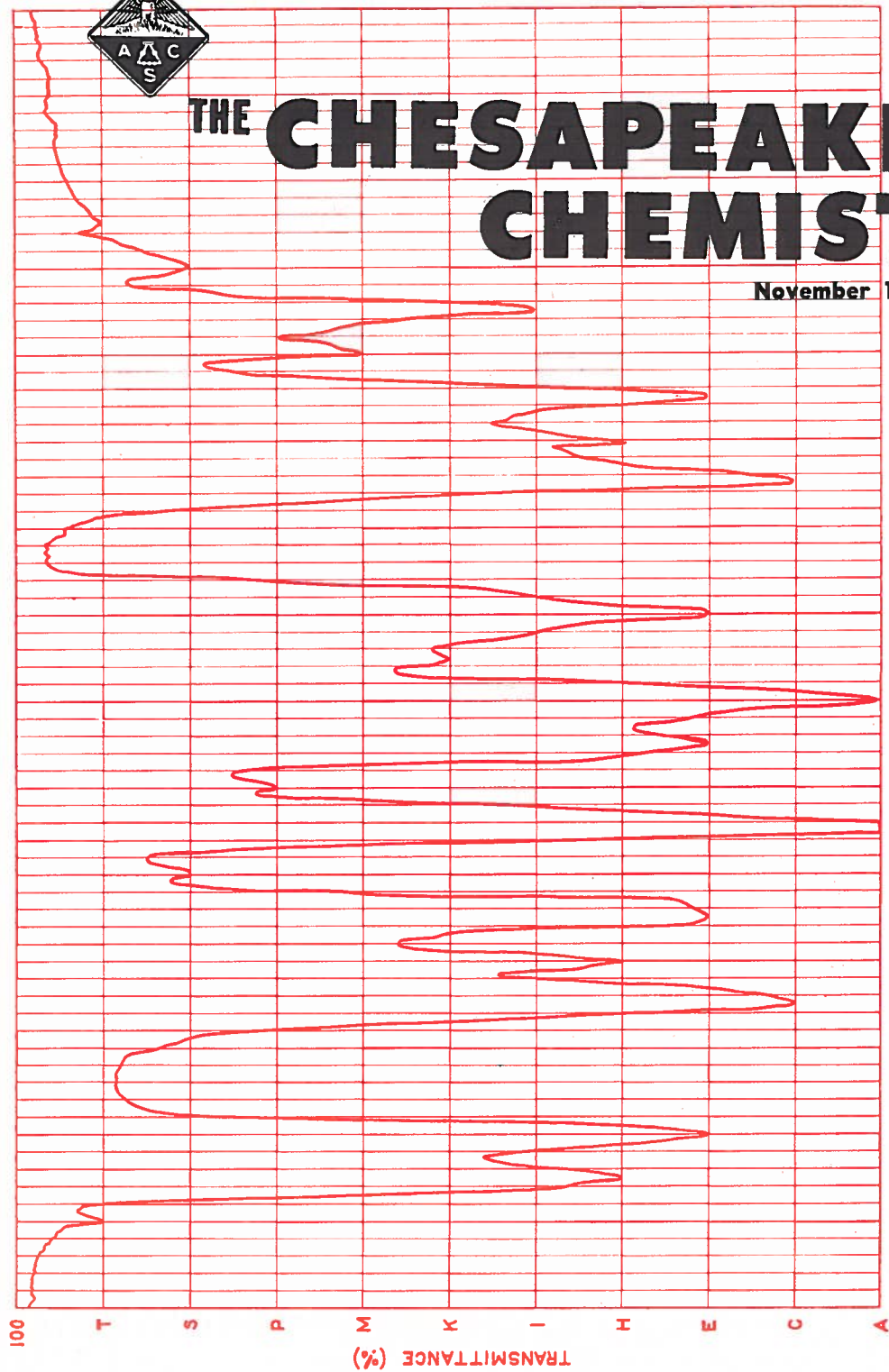




THE CHESAPEAKE CHEMIST

November 1957



NOW!

New Kimble

KIMAX

*The "hard glass" line that enables
Kimble to serve you as the most complete
source of laboratory glassware!*

KIMAX...

Kimble's trademark for laboratory glassware made of tough, hard KG-33 borosilicate glass . . . assurance of maximum accuracy, dependability and extra long life.

KIMAX...

for *highest standards* of thermal and mechanical shock resistance.

KIMAX...

for *outstanding resistance* to chemical attack. This means long life with sparkling clarity.

KIMAX...

ungraduated glassware provides outstanding resistance to heat and mechanical shock and conforms to the most accurate tolerances of dimensional uniformity.

KIMAX...

graduated glassware is individually retested for accuracy . . . markings are permanent, stay sharp and clear for a lifetime.

KIMAX...


completely interworkable with your existing "hard glass" ware . . . same coefficient of expansion . . . easy to repair and modify by using simple glass blowing techniques.

KG-33 tubing is readily available for your special glass blowing needs.

Look to Kimble—for convenience, unsurpassed quality and greater s-a-v-i-n-g-s!

For complete information on Kimble's new KIMAX borosilicate glassware line, see your laboratory supply dealer or write Kimble Glass Company, subsidiary of Owens-Illinois, Toledo 1, Ohio.

KIMAX is a trade-mark of Kimble Glass Company

KIMAX LABORATORY GLASSWARE
AN  PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES • TOLEDO 1, OHIO

The Chesapeake Chemist is published each month from September through May by the Maryland Section of the American Chemical Society.

EDITORIAL STAFF

EDITOR

Giles B. Cooke
Crown Cork & Seal Company

ASSISTANT EDITORS

Raymond C. Crippen
Crippen & Erlich Labs.

John W. Gryder
Johns Hopkins Univ.

Mrs. Joyce J. Kaufman
Johns Hopkins Univ.

Richard J. Kokes
Loyola College

F. Timothy Parr
Westinghouse Elec. Corp.

M. Norman Timbs
Army Chemical Center

BUSINESS STAFF

BUSINESS MANAGER

Richard L. Hall
McCormick & Company

ASSISTANT BUSINESS MANAGERS

John A. Kerchner
C. O. Monk, Inc. of Md.
Charles A. Baker
Penniman and Browne

CONTRIBUTORS

Robert S. Alexander
E. I. du Pont de Nemours & Co.

R. J. Allgeier
Fort Detrick

Louis W. Clark
Saint Joseph College

Basil W. Clarke
Crosse & Blackwell

Irving I. Cohen
Strasburger & Siegel

James W. Cole
Baltimore and Ohio RR

Walter H. DeCrette
Calvert Distilling Company

E. M. Glocker
Davison Chemical Company

H. Clifford Grant
The Martin Company

Wilton C. Harden
Hynson, Westcott & Dunning

Keith H. Jacobson
Army Chemical Center

Louise Kelley
Goucher College

Walter H. Kuhl
McCormick and Company

Karl L. Lockwood

Western Maryland College

Sister Mary Louis

College of Notre Dame of Maryland

James M. Naughton

Olin Mathieson Chemical Corp.

Edward J. Niehaus

Esso Standard Oil Company

William J. Schmitt

Woodstock College

Leroy H. Shuger

Baltimore Paint and Color Works

L. M. Soffer

Aberdeen Proving Ground

George H. Spaulding

Morgan State College

Herbert P. Strack

Lever Brothers Company

Theodore F. Strow

Armco Steel Company

Walter B. Tuemmler

Food Machinery and Chemical Company

Elinor Ware

Hood College

Mrs. Cornelia Williamson

Mutual Chemical Div., A.C.D.C.

Channing W. Wilson

Baltimore Gas and Electric Company

E. G. Vanden Bosche

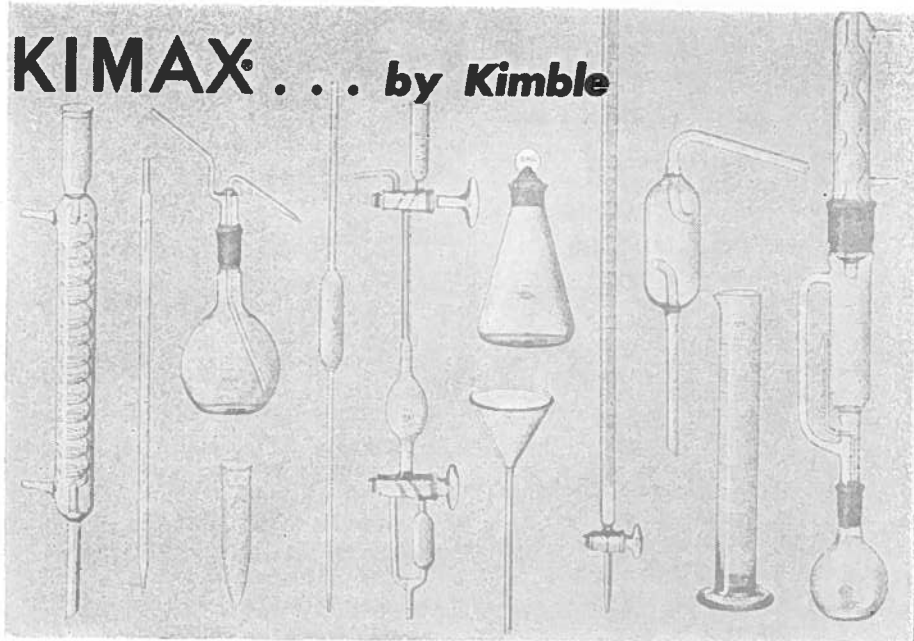
University of Maryland

TABLE OF CONTENTS

	Page
The November Meeting	5
Nominating Committee Report	6
Recipients of ACS Awards	9
Council Meeting	10
Maryland Section News	12

Whether or not you absorb at the proper wave length for reading the spectrum on our cover, you will be interested in the spectroscopy program at our November meeting. (See page 5.)

KIMAX . . . by Kimble



KIMAX . . . a new line of borosilicate laboratory glassware

KIMAX . . . trademark for a hard borosilicate glass now being made by the Kimble Glass Company under the designation KG-33. Available in a line of laboratory shapes and sizes, both graduated and chemical ware, which embodies the well-known Kimble quality, craftsmanship and accuracy.

KIMAX borosilicate glassware offers the following:

- High resistance to heat, mechanical shock and chemical attack.
- Low coefficient of expansion. Easily worked and sealed to borosilicate glass of similar properties.
- Graduated ware individually retested to insure accuracy.
- Can be combined with standard flint glassware to qualify for quantity discounts.

All of the items listed in the new Kimble catalog are offered in sturdy shelf-size packages containing sub-multiples of case quantities. These shelf packs provide protection and convenience in handling and also conserve shelf space.

Approximately 1400 of the items listed in the new Kimble catalog are being established by us as regular catalog items for immediate shipment from our stock.

NEW KIMBLE CATALOG SP-5. Describes new line of Kimax borosilicate glass as well as Exax and Tekk lines of standard flint glass. Write to us for copy, or directly to Kimble Glass Co., subsidiary of Owens-Illinois, Toledo 1, Ohio.



ARTHUR H. THOMAS COMPANY

More and more laboratories rely on Thomas / Laboratory Apparatus and Reagents
VINE ST. AT 3RD • PHILADELPHIA 5, PA.

THE NOVEMBER MEETING

Date:

Friday, November 22, 8:30 P.M.

Place:

Johns Hopkins University
Remsen Hall, Room 101

Program:

Annual Meeting, Maryland Section, ACS. Election of Officers for 1958

followed by

Joint meeting of the Maryland Section of the American Chemical Society and the Baltimore-Washington Spectroscopy Society.

Subject:

Chemical Spectroscopy*

Organic Section

Mr. E. Carroll Creitz, Chairman
National Bureau of Standards
Washington, D. C.

Inorganic Section

Mr. A. D. Leonardi, Chairman
Kaiser Aluminum & Chemical
Corp., Halethorpe, Md.

1. "The Application of X-Ray Fluorescence to Trace Analysis."
Dr. Martin B. Cavanagh
U. S. Naval Research Laboratory
Washington, D. C.
2. "X-Ray Spectrographic Analysis of Rare Earths."
Dr. Howard F. Carl
Davison Chemical Company
Baltimore, Md.
3. "Spectrographic Determination of Potassium in Coal."
Mr. Andrew F. Rekus
Baltimore Gas and Electric Co.
Baltimore, Md.

1. Panel Discussion on Instrumentation Representatives of Various Instrument Companies
2. "Sampling Techniques"
Dr. Leopold May
The Psychiatric Institute
University of Maryland
Baltimore, Md.
3. "A Case History: Spectrochemical Analysis of Naphthylamine Sulfonic Acids."
Mr. Alvin Bober & Mr. Jerome V. Hopson
The U. S. Customs Laboratory
Baltimore, Md.

Instruments will be exhibited by several companies.

* Following the business of Maryland Section ACS, meeting rooms will be announced to which the groups will adjourn for the lectures.

Dinner

Johns Hopkins Club

6:30 P.M.

Reservations should be made by Monday, November 18, with Dr. Edward A. Metcalf, 906 Wellington Road, Baltimore 12, telephone VA. 3-9577. The price is \$2.50 and preferably paid in advance.

ANNUAL MEETING

The election of officers for 1958 will be held at the November meeting in Remsen Hall immediately following dinner.

The Nominating Committee consists of Dr. Henry C. Freimuth, Chairman, Dr. Louise Kelley, Dr. Eugene Haas, Dr. William Reindollar and Brother Marcellus. This Committee has presented the following nominees:

Chairman	Edward A. Metcalf, Chemical Corps. Army Chemical Center
Vice Chairman and Chairman Elect	Edward M. Hoshall U. S. Food and Drug Administration
Secretary	Louise Kelley Goucher College
Treasurer	Lloyd C. Felton Hynson, Westcott and Dunning
Councilor, 3 years	Alsoph H. Corwin Johns Hopkins University
Alternate Councilor, 2 years, to fill the unexpired term of Ray- mond Costa	William H. Summerson Army Chemical Center
Alternate Councilor, 1 year	Raymond M. Burgison University of Maryland
Executive Committee Members-At-Large	Lester Corrsin, Catalyst Research Corp.
	Raymond C. Crippen Crippen and Erlich Labs.
	Samuel L. Goldheim American Bio-Chemical Laboratory
	Mrs. Joyce Kaufman Johns Hopkins University
	Richard J. Kokes, Loyola College

Our Bylaws provide for further nominations from the floor, but any member making such a nomination must have the prior assurance of the nominee that he will serve if elected.



GLASS INDUSTRY

To meet exacting specifications and achieve the desired physical properties, the glass industry requires that a control potassium determination be made both rapidly and accurately. 'Baker Analyzed' Reagents for potassium determinations afford the quality that assures speed with accuracy.

FERTILIZER INDUSTRY

Control of potassium balance is critical to the manufacture of fertilizers. The high insolubility of potassium and ammonium tetraphenylboron offers a basis for rapid and convenient determination of these ions in fertilizers and other products.

Analyze for Potassium

faster, more accurately
with 'Baker Analyzed' Reagents

WHEN YOU DETERMINE POTASSIUM, you choose a method which produces consistently reliable results quickly and economically. This is true for potassium determinations in fertilizers—in glass—or any product or process in which potassium is critical.

Perhaps you prefer a rapid precipitation method—'Baker Analyzed' **SODIUM TETRA-PHENYLBORON** offers many advantages: good filtering characteristics, extremely low solubility of its potassium salt, good solution stability, economy. The reagent cost for a typical determination is less than 10 cents.

Or perhaps you prefer an established turbidimetric procedure: 'Baker Analyzed' **SODIUM COBALTINITRITE** affords full compliance with ACS specifications—your assurance of suitability for potassium determination.

No matter what your industry, if you have a need for a reagent for use in determining potassium specify your choice from the following 'Baker Analyzed' Reagents: *Sodium Tetraphenylboron, Sodium Cobaltinitrite, Perchloric Acid, Chloroplatinic Acid.*

Here's Why:

The ACTUAL LOT ANALYSIS—impurities defined to the decimal on every 'Baker Analyzed' label.

The ACTUAL LOT ASSAY—not merely range assay, on more than 300 'Baker Analyzed' labels. Modern functional packaging for ease of handling, safety, and economical storage.

'Baker Analyzed' Reagents are available from 88 strategically located laboratory supply houses coast to coast. Why not check your stock this week? Your order will be expertly packed and shipped on the date you specify.



J. T. Baker Chemical Co.
Phillipsburg, New Jersey

'BAKER ANALYZED' REAGENTS ARE SOLD IN YOUR AREA BY:

HENRY B. GILPIN CO., BALTIMORE, MARYLAND
HENRY B. GILPIN CO., WASHINGTON, D. C.
WILL CORPORATION, BALTIMORE, MARYLAND

3 instruments in 1

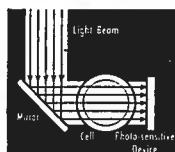

FISHER

NEFLUORO-PHOTOMETER

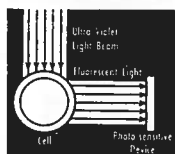


FOR LABORATORIES IN EVERY AREA OF CHEMISTRY

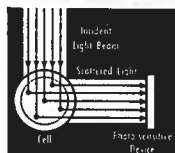
The three-purpose Fisher Nefluoro-Photometer combines in one easy-to-use instrument a colorimeter, nephelometer and fluorometer for rapid and precise determination of a wide variety of organic, inorganic, synthetic and biological materials. It is designed for simplicity and flexibility to fill present needs and to grow with your laboratory!



AS A COLORIMETER
Light of specified wavelengths is absorbed by solution. Amount absorbed is measured and related to concentration.



AS A FLUOROMETER
Light of one wavelength causes some substances to fluoresce. The fluorescent light is measured and related to the concentration.



AS A NEPHELOMETER
Dispersed particles scatter incident light, which is measured at right angles and related to particle concentration.



B17-b


FISHER SCIENTIFIC

America's Largest Manufacturer-Distributor of Laboratory Appliances & Reagent Chemicals

7722 Woodbury Drive, Silver Spring, Maryland

For immediate service dial SARatoga 7-8754 in Baltimore, Md.

RECIPIENTS OF ACS AWARDS

At the fall meeting of the American Chemical Society held in New York City it was announced that the recipient of the Garvan Medal for this year is Dr. Arda Alden Green of The Johns Hopkins University. The Garvan Medal is awarded annually to the woman who is judged to have made the most outstanding contribution in the field of chemistry in the United States. Dr. Green is at present a member of the staff of the McCollum-Pratt Institute of The Johns Hopkins University and also serves as a biochemical consultant for the Department of Pediatrics of the Sinai Hospital.

The work upon which the award was based was the successful isolation in crystalline form of the enzyme responsible for luminescence in the firefly. This work has made possible a better understanding of the means by which living things transform energy derived from food into a variety of useful forms, such as, in this case, light energy.



Dr. Paul H. Emmett, who holds the Grace Professorship in the Chemistry Department of Johns Hopkins University, received the Kendall Company Award in Colloid Chemistry at the September meeting of the A.C.S. The award was granted "for contributions to the Brunauer - Emmett - Teller method of measuring surface areas of solids." The importance of this method in the many fields of colloid science can scarcely be over emphasized. For example, heterogeneous catalytic reactions take place at the surface of a solid; consequently, before comparison of different catalysts can be made the total available area of the catalysts should be known. In the case of adsorption phenomena the efficiency of a given adsorbent is usually determined by the amount of available surface and its nature. In these, and many other fields, the extent of the surface of the solid is a significant variable. In general, a solid particle is not smooth and estimates of the area based on the particle diameter alone will be low. It was necessary, therefore, to obtain some method of determining the specific surface which would include the internal area of these cracks and pores. Emmett, Brunauer and other coworkers showed that the problem of determining the surface of solids could be best approached by examining the adsorption of gases. The Brunauer - Emmett - Teller (B.E.T.) Theory provided a quantitative expression of their ideas and using the resulting equation the specific surface of a solid can be determined from the amount of adsorption at a single pressure. In the two decades since the publication of the B.E.T. Theory many workers have tested its applicability to the measurement of the surface areas of a large number of solids. Foremost



Dr. Green has devoted many years to methods for the isolation and characterization of proteins and other natural substances of animal origin. Among her earlier achievements were her studies at Harvard University on the isolation and properties of hemoglobin and other blood proteins, which laid some of the groundwork for the important use of plasma proteins in the treatment of wound shock and in the conferring of immunity against certain virus diseases such as measles and hepatitis.

Later, at the Cleveland Clinic, she isolated another plasma protein which

(Continued on page 10)

(Continued on page 10)

(Continued from page 9)

Dr. Green

appears to be involved in the development of high blood pressure. She also participated there in the isolation from the blood of a substance known as serotonin, which is now of central importance in studies on the chemical basis of schizophrenia.

In addition, Dr. Green made important studies on the proteins of muscle while she was at Washington University, St. Louis, in the laboratory of Professors Carl and Gerty Cori. The Professors Cori were awarded the Nobel Prize in 1947 for studies in which Dr. Green had played a major role.

Dr. Green resides at 6101 Pinehurst Avenue. The formal presentation of the Garvan Medal will take place at the Spring meeting of the American Chemical Society.

(Continued from page 9)

Dr. Emmett

among these is Dr. Emmett. It is largely due to his efforts that today the B.E.T. approach is a world-wide standard method for determining the specific surfaces of solids.

Dr. Emmett has over a hundred publications relating not only to the B.E.T. Theory but also other fields. In the field of thermodynamics he has measured the equilibria for several reactions and the free energy of formation of a number of solid compounds. In the field of catalysis he has contributed significantly to our knowledge of the Fischer-Tropsch synthesis, the ammonia synthesis, and catalytic cracking. For these and other researches he received the Pittsburgh Award of the American Chemical Society in 1953 and was elected to the National Academy of Sciences in 1955.

COUNCIL MEETING

The Council of the American Chemical Society held its regular meeting in September, dealing with routine business with dispatch and reaching decisions reported in the Council minutes as published in C&EN. Maryland was represented by three of our four councilors (Cooke, Hellerman, Otto).

Maryland chemists will be particularly interested in certain items. The device which determines the number of councilors per section was set at 330 for 1958, so our section will continue to be represented by four councilors. Membership in the ACS as of September 1 exceeds 81,000. The Council Committee on Publications is preparing, for publication in C&EN, a guide for the authors of papers and another for those who present papers at meetings. The Society has received from the trust funds involved about \$420,000 for the Petroleum Research Fund, and the advisory board is allocating this according to the terms controlling the fund.

The fifth Decennial Index of Chemical Abstracts will consist of 19 volumes of about 1200 pages each. It will cost about \$2,000,000 to produce this monumental work, and the financial problems involved have been a giant headache to the Board of Directors for sometime. Prepublication prices of \$400 to ACS members, \$500 to college and university libraries and \$900 to others have been set, and the prices will be higher on orders received after publication. At these prices the Society will probably break even financially. The sixth Decennial Index must now be considered, and various alternatives include the possibility that it may not be published at all.

Another problem before the Board of Directors and the Council is that of housing the ACS, which has greatly outgrown its pleasant but inefficient quarters in Washington. The proposed new building is described in C&EN for September 16, 1957, page 121, and reasons for undertaking its construction and the methods of financing it are set forth there. This is a report from the Chairman of the Board of Directors which all members should read.

Other action by the Council is reported in C&EN, September 16, page 127 and September 23, page 117.

Belle Otto

American BioChemical Laboratory, Inc.

Dr. S. L. Goldheim, Director

Research - Development - Analysis
Plant Surveys - Tests - Quality Control

1113 North Rolling Road
Baltimore 28, Md.
Ridgeway 7-4928



Test at large university shows how to erase two-thirds of your graduated cylinder breakage *

When one of the largest schools of technology in this country decided to find out how true are the claims we make for PYREX brand graduated cylinders, it came up with this result:

Just one PYREX cylinder ends up in the "broken glass" pail for every three of the leading competitive brand.

The university based its test on the cylinder-breaking ability of two large groups of chemistry students. One group used only PYREX No. 3046 cylinders for a full semester. The other group used only the competitive brand.

Why do you get such low breakage?

No magic involved—just forty-and-some years of know-how that's built into the design of the PYREX No. 3046 cylinder and the glass it's made of.

These design features, for example: Reinforced bead strengthens cylinder, helps prevent breakage if cylinder tips.

Hexagonal base—a Corning first—with extra base width to resist tipping. Also prevents rolling when you set cylinder on its side.

Permanent graduations

You also get LIFETIME RED graduations on No. 3046 cylinders. Etched right into the glass through a permanent layer of red, they can't wear off.

No. 3046 cylinders are available in sizes 10 thru 250 ml. For more information on these and other PYREX volumetric ware, consult your Laboratory Supply Dealer or your Laboratory Glassware Catalog LP36. If you don't have this catalog of Corning glassware, we'll be glad to send you a copy.



CORNING GLASS WORKS
703 Crystal St., Corning, N.Y.

Corning means research in Glass



PYREX® laboratory ware

... the tested tool of modern research

MARYLAND SECTION NEWS



ACADEMIC

JOHNS HOPKINS UNIVERSITY

A number of papers were given by members of the Chemistry Department of Johns Hopkins University at the September meeting of the A.C.S. These were:

"Catalytic Hydrogenation over Copper-Nickel Alloys"

W. K. Hall and P. H. Emmett

"Some Properties of Imidazole Heme-complexes"

Also H. Corwin and Stephen Bruck

"Products from *Serratia Marcescens*"

A. J. Castro, A. H. Corwin, J. Waxham and A. L. Beilby

"Petroporphyrins"

Also H. Corwin, Winslow S. Caughy, Anna M. Leone, J. Earl Danieley and Jahanbux F. Bagli

"A Mass Spectrographic Appearance Potential Study of Isotopically Labeled Diboranes"

W. S. Koski, Joyce J. Kaufman, C. F. Pachuki and F. J. Shipko

Professor Emmett also presided over a session of the Symposium on Advances in Gas Chromatography.

UNIVERSITY OF MARYLAND

Resignations:

Raymond E. Vanderlinde, Ph.D., Associate Professor of Biological Chemistry, has resigned to assume the directorship of the Bio-chemical Laboratory of the State University Medical Center at Syracuse. He will also hold an appointment as Assistant Professor in the Department of Biological Chemistry of the Medical School. This move actually constitutes a return to his alma mater.

Frank D. Vasington, Ph.D., Assistant Professor of Biological Chemistry, has resigned after two years at Maryland. He received his doctorate from this department in 1955. Dr. Vasington will join the McCollum Pratt Research Institute at Johns Hopkins University where he has accepted a polio fellowship to work with Dr. Alvin Nason. He will work in the field of enzymology.

Appointments:

Guilford G. Rudolph, Ph.D., has been appointed Associate Professor of Biological Chemistry effective September 1, 1957. Dr. Rudolph comes from Nashville, Tennessee, where he served as

Assistant Director and Principal Scientist, Radioisotope Unit, Veterans Administration Hospital and Assistant Professor of Biochemistry, Vanderbilt University Medical School.

Dr. Rudolph's research activities appear in 22 publications in the field of sex hormones, water and electrolyte balance, intermediary metabolism, and the use of radioisotopes in bio-chemical research.

The new radioisotope research laboratory which is now being installed in the Department of Biological Chemistry will be directed by Dr. Rudolph. He will introduce some experiments in radio bio-chemistry into the course in bio-chemistry for the medical students and will also develop a more advanced course in this subject for the graduate students. Dr. Rudolph will also continue his research in the field of sex hormones.

The vacancy created by the resignation of Dr. Frank D. Vasington has been filled by the appointment of Dr. Arthur J. Emery, Jr., Ph.D., as Assistant Professor of Biological Chemistry effective September 1, 1957.

From 1950-54 the new appointee was Research Fellow in Bio-chemistry at the University of Rochester School of Medicine and Dentistry where he was awarded the Ph.D. degree in 1954. From 1954-57 Dr. Emery was Associate Scientist (Bio-chemistry) in the Flash Burn Section of the University of Rochester Atomic Energy Project and Instructor in Bio-chemistry at the University of Rochester School of Medicine and Dentistry.

Dr. Emery's research activities appear in 12 publications in the fields of biological stains, intracellular enzymes, hemoglobinemia, and bio-chemical changes in the various constituents in the skin of hogs following flash burn.

Announcement has been made of the awarding of a research grant of \$20,255 to the University of Maryland School of Pharmacy by the National Institute of Mental Health for a three year study of

(Continued on page 14)

Consulting Chemists

Research Chemists

FOSTER D. SNELL, INC.

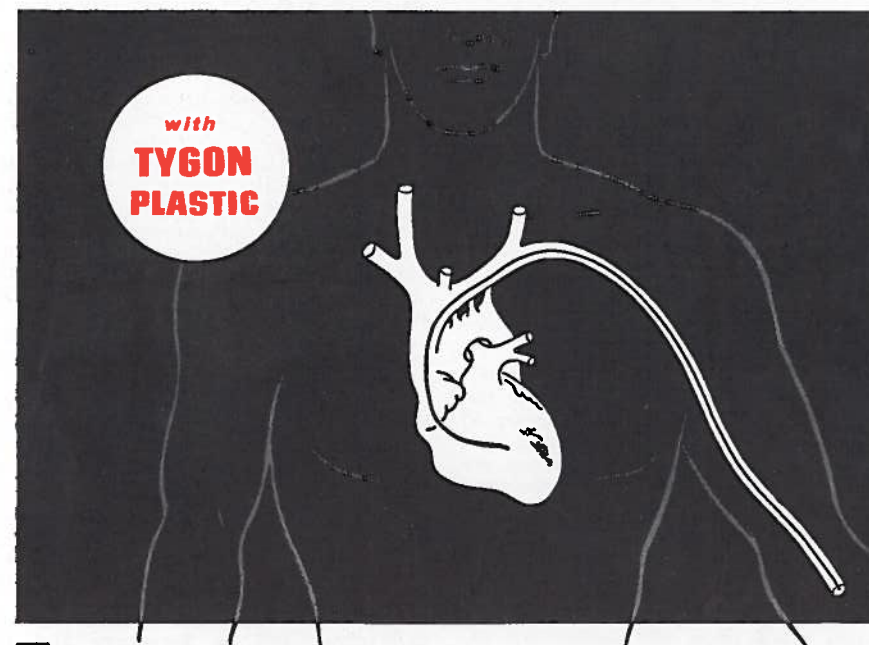
Baltimore Laboratories

Crippen & Erlich Laboratories, Inc.

1138 E. North Avenue

Baltimore 2, Md. Phone BEImont 5-6350

learning the secrets of the Heart



THE secrets of what occurs in the human heart while working are slowly unveiled by a new development in medical science — the heart catheter.

A thin Tygon plastic tube is inserted into a vein in the arm and carefully threaded through the vein until it actually enters the heart cavities. The internal sounds of the heart can be studied, samples of the blood in the heart, as it enters the heart, or as it leaves the heart can be analyzed.

Why was Tygon Plastic Tubing selected for this task? Because this versatile plastic can be formulated to possess the unique combination of needed properties: flexibility, excellent sound conductivity, sterilizability, and freedom from any toxic reaction in contact with human tissue.

Wherever the need is critical, you'll find that one of the many formulations of Tygon plastic has been developed to fit that need. In medicine, in food handling, in research, and in industry Tygon matches specific requirements with specific performance.

How Can TYGON serve you?

May we send you a copy of our newest bulletin on Tygon? It describes in detail the many formulations, their properties and uses. Free on request. Write Dept. BW557, U. S. Stoneware, Akron 9, Ohio.

PLASTICS & SYNTHETICS DIVISION



U. S. STONEWARE

AKRON 9, OHIO

7F-1

(Continued from page 12)

chemical substances as drugs in the treatment of mental illness.

The grant is for the support of a project which has been in progress for two years under the direction of Dr F. M. Miller, Associate Professor in the Department of Chemistry in the School of Pharmacy.

Dr. Miller is assisted in the study by Mr. Myron Weinberg and Mr. Bernard Grabowski.

Dr. Norman J. Doorenbos, Assistant Professor of Pharmaceutical Chemistry, spoke at a recent meeting of the University of Maryland Biological Society. His subject was "Recent Developments in Steroids."

LOYOLA COLLEGE

Mr. G. Thompson, Professor of Chemistry at Loyola College, attended the Fourth Chemistry Institutes Program at the University of North Carolina last summer. He received a grant from the National Science Foundation for the conference which lasted six weeks. The program included morning lectures by specialists in the various fields of chemistry designed to acquaint college teachers with the latest developments in research. In the afternoon, discussion groups, plant trips and laboratory instructions in the new techniques were available.

These conferences are held at colleges all over the country, not only for college teachers but also high school science teachers. In many cases a substantial stipend is available from the National Science Foundation. It is relatively easy to reach all the college teachers in the country with these announcements but it is not always easy to reach high school science teachers. It would be useful if members of this section would inform the high school science teachers whom they know of this opportunity. Many of the conferences held for high school teachers include not only chemistry but also related subjects and academic credit can be obtained usually.

Strasburger & Siegel, Inc.

Chemists, Bacteriologists, Consultants

Expert Testimony

1403 Eutaw Place
Baltimore 17, Maryland

Established 1926



INDUSTRIAL

BALTIMORE AND OHIO RAILROAD

Herman A. Bode attended the conference and exhibit of the "Instrument Society of America" at Cleveland.

James W. Cole has returned from the Nevada Test Site where he participated in the radiological health program during the nuclear test series.

Howard D. Plumly was elected treasurer of the Baltimore section of the American Society of Lubrication Engineers.

Russell W. Sniff was recently elected to the Board of Directors of the American Society for Testing Materials.

Carl Webster attended the New York meeting of the American Chemical Society.

CRIPPEN & ERLICH LABS., INC.

Mrs. Lillie Quan, formerly chemist with the Laboratory of Vitamin Technology of Chicago, has joined the staff of Crippen & Erlich Laboratories, Inc., as vitamin chemist.

Mrs. Betty Dignazio has also joined the office staff as secretary and receptionist.

AMERICAN BIO-CHEMICAL LABORATORY

Testing equipment consisting of three 10 to 20 cu. ft. cabinets for testing materials, particularly packages, over the range of tropical to freezer conditions has been obtained recently by American Bio-Chemical Laboratory. With already existing insect chambers, this provides rather complete package and material testing facilities against infestation, WVTR, etc.

Also, electro-analysis equipment for metals, a B & L Spectronic 20, an ultra-violet sterilization cabinet and an oven with both controlled air speeds and temperature have been added.

Penniman & Browne, Inc.

Chemists • Engineers • Inspectors

341 St. Paul Pl., Baltimore 2, Md. • MUlberry 5-5811

Member American Council of Independent Laboratories

HARSHAW SCIENTIFIC SPOTLIGHTS Centrifuges

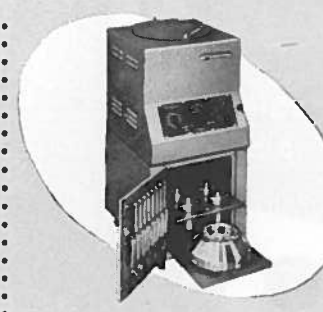
Two new centrifuges have been added to our already extensive line of International centrifuges. The new HT for high speed centrifuging and the new CM, a cabinet unit, for routine moderate speed work. The HT high speed centrifuge provides speeds to 17,000 r.p.m., with forces to 34,390 x G and is designed for maximum safety to operating personnel. The CM centrifuge features great adaptability at moderate price. This attractively designed unit

accommodates 23 heads and accessories for any routine application.

An International centrifuge is available for every need from stock. The complete line includes micro, clinical, chemical, routine, large capacity, explosion proof, blood plasma, refrigerated, oil testing, soil testing, and a number of other special application centrifuges. Complete information is available on the centrifuge you need. Write for literature.



H-9985—International Model HT, with steel guard bowl, complete instrumentation and 8-place angle head for 50 ml tubes (without tubes). For operation on 115 volts, 50/60 cycles, single phase . . . \$745.00



H-8800—International Size 1, Model CM, with stainless steel guard bowl, autotransformer controller, electric tachometer and timer but without head, shields or cabinet floorstand; 115 volts, 50/60 cycles . . . \$475.00



H-8500—
Clinical Model



H-8858—Size 1, 58V
Routine and Research



H-9506—Size 2, V
Large Capacity, High Speed



H-9875—Model PR-2
Refrigerated

WRITE FOR INFORMATION

HARSHAW SCIENTIFIC

Division of The Harshaw Chemical Co. • Cleveland 6, Ohio

Sales Branches and Warehouses

Cleveland 6, Ohio, 1945 East 97th St.
Houston 11, Texas, 6622 Supply Row
Cincinnati 13, Ohio, 6265 Wiehe Road
Los Angeles 22, Calif., 3237 S. Garfield Ave.
Detroit 28, Mich., 9240 Hubbell Ave.
Philadelphia 48, Pa., Jackson & Swanson Sts.
Sales Offices: Baton Rouge, La. • Buffalo 2, N. Y. • Pittsburgh 22, Pa. • Oakland 11, Calif.
Hastings-On-Hudson 6, N. Y.

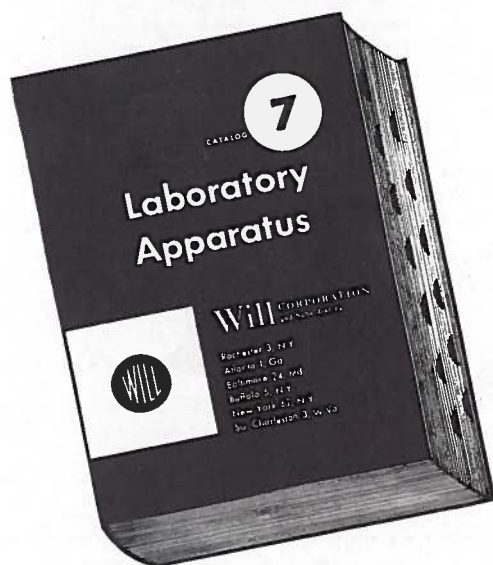
The Chesapeake Chemist
6 West Fayette Street
Baltimore 1, Maryland

Bulk Rate
Paid
U.S. Postage
Baltimore, Md.
Permit No. 2917

NEW

Will CATALOG

7



THUMB
INDEXED
to save
TIME

SPEEDEXED
to find it
FASTER

LATEST
PRICES
Newest
EQUIPMENT

*deliberately designed with **YOU** in mind!*

It's different . . . more than just a collection of new apparatus! It's a *buying guide* to help you select the right equipment *quickly!*

Open the cover . . . Speedex instantly leads you to the section of your choice . . . at the head of each section, a Sub-index. There are dozens of comparison charts, reference tables, buying hints throughout. Listings are concise, tabulated when possible; features are headlined; and it's up-to-date, even includes KIMAX, the new "hard" glassware by Kimble.

We're sure you'll make No. 7 *your* lab apparatus guide . . . we deliberately planned it for you.

If you haven't received your copy, write us on your company letterhead.

Will CORPORATION of MD.

Specialists in  Scientific Supply

5-31 N. HAVEN ST., BALTIMORE 24, MD.

Telephone Dickens 2-4850