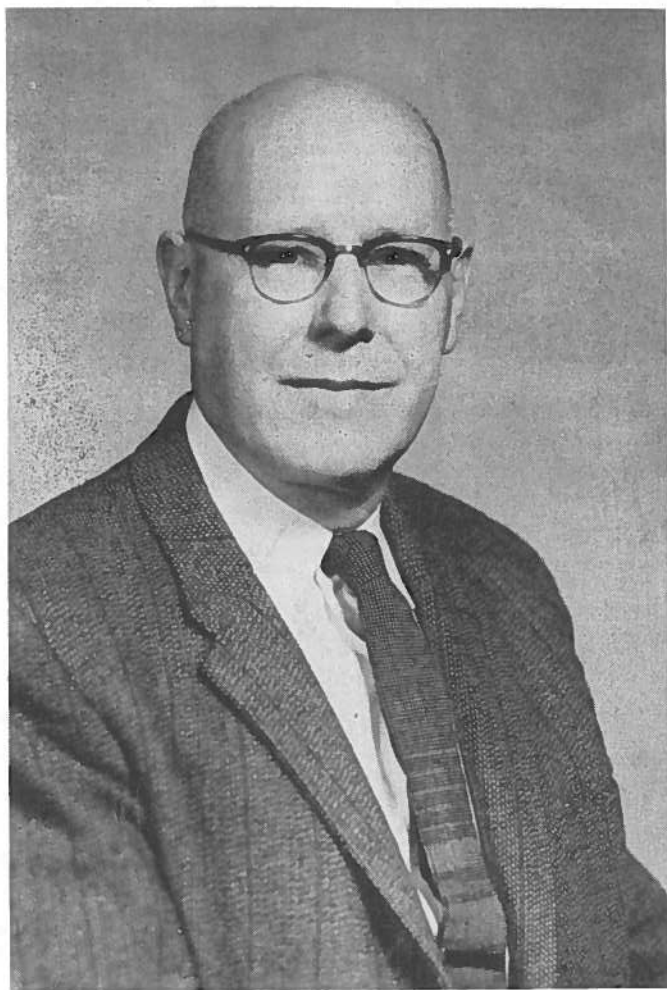




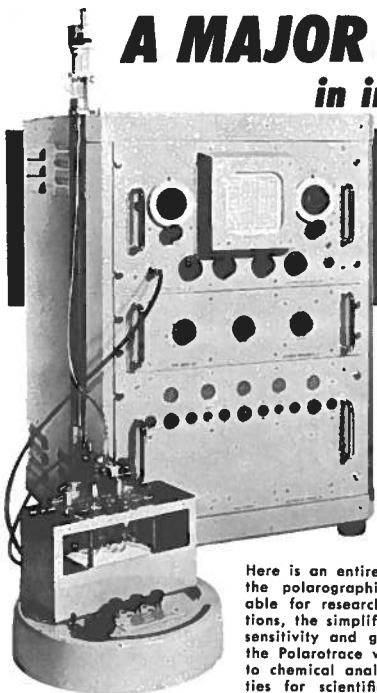
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February, 1959



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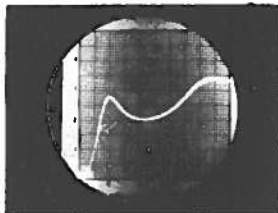
Reference: Our application laboratory is at your disposal to run test specimens. Detailed information and prices available upon request.

B. J. MacNulty, G. F. Reynolds
E. A. Ferry, ANALYST (1954)
79, 190 and 938

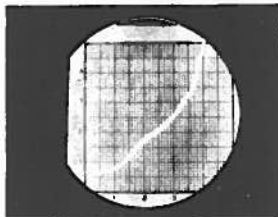
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UNRETOUCHED PHOTOGRAPHS
of the POLAROTRACE Screen

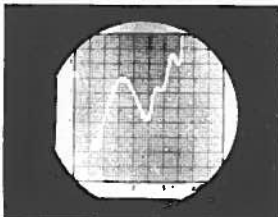
1×10^{-5} M $ZnCl_2$ plus
 1×10^{-5} M $CoCl_2$ in
0.1 M KCl



Mixture of isomeric
nitro-terephthalic acids



DIRECT



DERIVATIVE

THE CHESAPEAKE CHEMIST

VOL. 15

FEBRUARY, 1959

NUMBER 2

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

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Our cover shows Dr. John C. Bailar, Jr., American Chemical Society President.



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FEBRUARY MEETING**Date:**

Friday, February 27, 1959

Time:

8:30 P.M.

Place:

Bennett Hall
Maryland State Department of Health
20 East 23rd Street, Baltimore 18, Md.
(Entrance on 23rd Street between
Charles and St. Paul)
Plenty of parking space—Private lot.
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refreshments

Speaker:

Dr. John C. Bailar, Jr.
Professor of Chemistry and Head of
the Division of Inorganic Chemistry at
the University of Illinois
President of the American Chemical
Society

Subjects:

1) Stereospecific Effects in Coordination Chemistry.

Dr. John C. Bailar, Jr., was born in Golden, Colorado, May 27, 1904. He received his B. A. degree from the University of Colorado in 1924; served as Research Fellow and obtained his M. A. in 1925. After a period of research and teaching at the University of Michigan from 1925 to 1928, culminating in his Ph. D., Dr. Bailar went to the University of Illinois where he is now Professor of Chemistry and Head of the Division of Inorganic Chemistry.

Dr. Bailar is best known in the field of chemistry for his definitive work and writing on complex inorganic compounds, the 1956 ACS Monograph on "The Chemistry of Coordination Compounds" being in great part his efforts along with the collaboration of some of his students. His texts, with B. S. Hopkins: "Essentials of College Chemistry" and "General Chemistry for Colleges" are well known in academic circles.

In addition to being Editor-in-Chief of Volume IV of "Inorganic Syntheses", Dr. Bailar has served on the editorial boards of the Journal of the American Chemical Society, Journal of Inorganic and Nuclear Chemistry, and Chemical Reviews.

Dr. Bailar's long interest in our own American Chemical Society has resulted in his rise through the ranks to his present office as national President. He has been variously Chairman of the Division of Chemical Education, Secretary-Treasurer and Chairman of the Division of Physical and Inorganic Chemistry, Chairman of the Division of Inorganic Chemistry, Chairman of the Committee on National Meetings and Divisional Activities, and, of course, President-Elect in 1958. His fraternal recognition includes memberships in Phi Beta Kappa, Sigma Xi, Phi Lambda Upsilon and Alpha Chi Sigma.

STEREOSPECIFIC EFFECTS IN COORDINATION CHEMISTRY

Studies of the stereochemistry of complex inorganic compounds have brought to light a considerable number of examples of stereospecificity. For example, tris-propylenediamine cobalt (III) ion can exist, theoretically, in sixteen stereoisomeric forms. Less than half of these have been isolated, and there is no evidence for the existence of more than eight. Of the eight which do seem to exist, some are much more stable than others. The phenomenon of stereospecificity seems to be quite general, for the examples involve several different metals and a wide variety of complexing agents, combined into both four covalent and six covalent complexes. In spite of the importance of the subject to the theory of stereochemistry, few systematic investigations have been made, and there has been no satisfactory explanation for the effects which have been observed. Jaeger has attempted to relate the stability of diastereoisomers to the symmetry of the complex molecules, but this explanation does not account for properties of the substances, even qualitatively. In this lecture, some of the pertinent examples will be reviewed, the general stereochemistry of chelate compounds will be examined, and the results will be applied to a few examples which have been cited. Finally, the assignment of absolute configurations of chelate compounds will be discussed.

Dinner:

Love's Restaurant, Charles & 25th Sts., Dinner 6:30 p.m., no reservations required.



2) American Chemical Society Affairs. Opportunity will be provided for questions to Dr. Bailar, both on his technical subject and on our Society's affairs.



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Councilors: Giles B. Cook, 1959-60-61, Belle Otto, 1959, Leslie Hellerman, 1959.

Alternate Councilors: Richard Hall, 1959-60-61, William H. Summerson, 1959, Emanuel Kaplan, 1959.

Executive Committee, Elected Members-at-Large: Arthur J. Emery, Jr., Joyce J. Kaufman, Karl L. Lockwood, Frank T. Parr, George M. Steinberg.

Executive Committee, Past Chairmen (not referred to above):

Donald H. Andrews, Raymond M. Burgison, W. Mansfield Clark, H. A. B. Dunning, Sr., Fitzgerald Dunning, Paul H. Emmett, Henry C. Freimuth, Wilton C. Harden, John A. Herculson, Edward S. Hopkins, John C. Krantz, Jr., H. Huntley Lloyd, Duncan MacRae, Edward A. Metcalf, S. T. Powell, E. Emmet Reid, William F. Reindollar, Channing W. Wilson.

COMMITTEE CHAIRMAN

1. *Bylaws:* H. Huntley Lloyd, Department of Chemistry, Goucher College, Towson 4; VA 5-3300.
2. *Chemical Education:* Arthur J. Emery, Jr., University of Maryland School of Medicine, Baltimore 1, PL 2-1100, Ext. 201
3. *Council of Engineers Club Associated:* Edward S. Hopkins, 306 N. Charles St., Baltimore 1, SA 7-5588, TU 9-0060.
4. *Committee on Guidance for Maryland, E.C.P.D.:* Channing W. Wilson, 4122 Westwood Road, Baltimore 18, BE 5-4141.
5. *Finance:* Samuel L. Goldheim, American Biochemical Laboratories, Inc., Rolling Road and Baltimore National Pike, Baltimore, RI 7-4928.
6. *Hospitality:* Mrs. Joyce J. Kaufman, Department of Chemistry, Johns Hopkins University, Baltimore 18, HO 7-3300.
7. *Membership:* William Stahl, McCormick & Co., Inc., Light and Barre Sts., Baltimore 2, LE 9-6460.
8. *Nominations and Awards:* William H. Summerson, CW Laboratories, Army Chemical Center, Baltimore, ED 4-1000.
9. *Program:* Lloyd C. Felton, Hynson, Westcott & Dunning, Inc., Charles and Chase Sts., Baltimore 1, VE 7-0840.
10. *Publications:* Henry C. Freimuth, 109 Arbutus Ave., Catonsville 28, RI 7-4513.
11. *Public Relations:* Leopold May, Department of Psychiatry, University of Maryland, Baltimore 1, LE 9-0320, FO 7-7426.
12. *Radio and TV:* (Vacant)
13. *Reimsen Award:* Walter S. Koski, Department of Chemistry, Johns Hopkins University, Baltimore 18, HO 7-3300.
14. *Editor-Chesapeake Chemist:* Raymond C. Crippen, Crippen Laboratories, Div. Foster D. Snell, Inc., 1500 Guilford Ave., Baltimore 2, VE 7-6650.

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MARYLAND SECTION NEWS



INDUSTRIAL

McCORMICK & COMPANY

Dr. Richard L. Hall, Director of Research, McCormick & Company, 1958 President of the Maryland Chapter of the Institute of Food Technologists, was the speaker at the Annual Ladies Night of this Chapter held at the Hotel Stafford in Baltimore in December. The members and guests numbering about one hundred were entertained with some very witty and lively comments on "Little known aspects of spices and flavoring materials" by Dick Hall, who in his spare time is also business manager of the Chesapeake Chemist and very active in the affairs of the Maryland Section of the American Chemical Society.

Dr. William H. Stahl, Research Manager of McCormick & Company, also a member of Maryland Section of American Chemical Society as well as Institute of Food Technologists, gave an address to the Chicago section of the Institute of Food Technologists in November, on the subject of "Chromatography and Spectroscopy in the identification and analysis of Food Flavoring Components". Eye witnesses report that this was one of the best attended meetings of the I.F.T. year in Chicago, attracting an audience of nearly two hundred food technologists.

CROSSE & BLACKWELL

Dr. B. W. Clarke of Crosse & Blackwell in Baltimore, appeared in a series of interviews on the WBAL "Open Line" mid-day radio program during December. He discussed the history, development and utilization of Crosse & Blackwell Holiday Food Products, such as glass packed Mince meat and Hard Sauce and canned Plum Pudding and Fruit Cakes.

FOSTER D. SNELL, INC. PURCHASES BUILDING IN BALTIMORE TO HOUSE CRIPPEN LABORATORIES

Crippen Laboratories Inc., a subsidiary of Foster D. Snell, Inc., presently located at 1138 East North Avenue, Baltimore 2, Md., will soon occupy a newly purchased building at 1500 Guilford Ave., Baltimore 2, Md.

The purchase of the building as announced by Dr. Foster D. Snell, President and Chairman of the Board of

Foster D. Snell, Inc., the parent company, is in line with an expansion program for the Crippen Laboratories. The new quarters will provide greatly increased space for expanded laboratory facilities and a constantly growing mouse colony.

Complete occupancy by Crippen Laboratories, Inc., is expected before March 1, 1959.

E. I. DuPONT DE NEMOURS & CO.

The Baltimore plant of the E. I. du Pont de Nemours & Co., Inc., recently completed six years without a lost time accident.

EMERSON DRUG COMPANY

A. W. Taff, Director of Research, has been elected Chairman of the Maryland Section of the American Institute of Chemical Engineers. He is also a member of Maryland Section of the American Chemical Society.



GOVERNMENT

ARMY CHEMICAL CENTER

1. Dr. Seymour D. Silver, Deputy Commander for Scientific Activities was recently elected to succeed Dr. Bernard J. Jandorf as president of the Army Chemical Center Branch of RESA, the off-campus counterpart of Sigma-Xi.
2. Dr. David B. Dill, Deputy Director of the Directorate of Medical Research has been named by the president of the National Academy of Sciences to the Armed-Forces National Research Council Committee on Bio-Astronautics. This committee was established to assist the Armed Forces on problems related to maintaining life in space.
3. Dr. Bernard J. Jandorf, Directorate of Research, Col. R. Chapman, Director of the Directorate of Development, and Mr. C. E. Miller, Directorate of Development, attended the 10th Scientific Symposium of the Defense Research Board of Canada at Ottawa as official delegates from the United States.

U. S. CUSTOMS LABORATORY

The U. S. Customs Laboratory in the past year has expanded its instrumentation by the addition of a Vapor Fractometer, Polarograph, Recording Ultra Violet Spectrometer, and a Micro Balance.

(continued on page 11)

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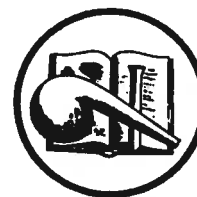
TREASURER'S REPORT FOR 1958

MARYLAND SECTION, AMERICAN CHEMICAL SOCIETY

Cash balance, January 1, 1958		\$1247.40
Receipts		
1. Local section apportionment	\$1616.00	
2. Commissions for new members	25.00	
3. Maryland Section dues for 1958	508.00	
4. Contributions for Remsen Memorial Lectureship	446.00	
5. Dinner Overpayment	3.25	
	<u>\$2598.25</u>	\$3845.65
Expenditures		
1. Remsen Memorial lecture, May 1958	\$ 586.02	
2. Regular Section meetings (8) including refreshments	406.75	
3. Gift to ACS Building Fund	1250.00	
4. Secretarial expense	536.54	
5. Affiliation fee, Engineer's Club of Baltimore...	10.00	
6. Committee expense, including gifts	216.56	
	<u>\$3005.87</u>	\$3005.87
Balance, checking account, December 31, 1958		839.78
Balance, savings account, December 31, 1958		788.36
Total resources, December 31, 1958		<u>1628.14</u>

Kloyd C. Felton Treasurer

(continued from page 9)

**ACADEMIC****GOUCHER COLLEGE**

Dr. Belle Otto spoke to the Science Club of Western High School in Baltimore on January 20th. Her topic was "Colloids".

UNIVERSITY OF MARYLAND

Dean Noel E. Foss was presented with a large portrait by the Wyeth Laboratories. Wyeth Laboratories has been honoring the outstanding deans of Schools of Pharmacy in their quarterly publication, *Pulse of Pharmacy*. The portrait appeared on the cover of the last publication. Dean Foss is well-known for his contributions in industry, education and research. Even with his responsibilities as an administrator, he has remained active in research.

Dr. Harkishan Singh, Assistant Professor of Pharmaceutical Chemistry of the University of Saugar, Saugar, India, has joined the staff of the University of Maryland while on sabbatical leave. He

was the recipient of a post-doctoral fellowship in steroids and is working with Dr. Norman J. Doorenbos, Associate Professor of Pharmaceutical Chemistry.

COLLEGE OF NOTRE DAME

Dr. Raymond Burgison of the University of Maryland spoke at the meeting of the College of Notre Dame Chapter of Student Affiliates on Tuesday, December 9th. Dr. Burgison discussed the chemistry of the drugs he is synthesizing at the present time.

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New Member

Blazek, James J.
 Brown, Elise A.
 Castle, Margaret
 Dunseth, Maria G.
 Garbus, Joel
 Hewett, C. M.
 Hotta, Steven
 Hutton, Robert S.
 Lowe, John P.
 Schellenberg, Karl A.
 Stern, Robert L.

Professional Affiliation

Reisterstown, Md.
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 Frederick, Md.
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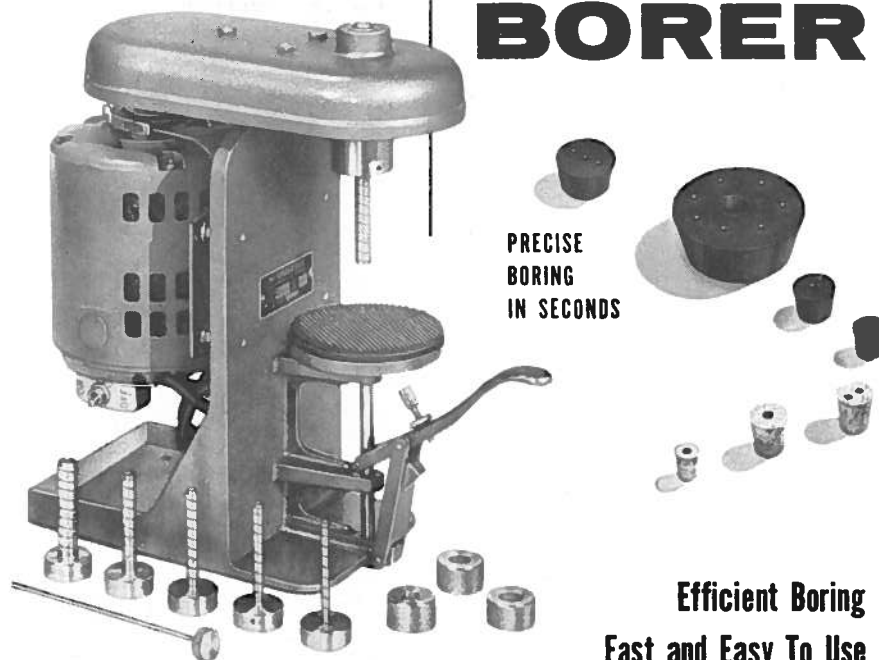
Atkinson, John C.
 Avonda, F. P.
 Bart, Miles H.
 Blaylock, B. A.
 Brown, H. A., Jr.
 Brownell, R. M.
 Cavanaugh, D. J.
 Clark, David M.
 Cortelyou, E. H., Mrs.
 Coviello, D. A.
 Draney, John J., Jr.
 Fellows, Charles C.
 Fernandez-Hertran, J. F.
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 Garrison, A. W.
 Jessup, John N.
 Linder, Seymour
 Lipke, Herbert
 Markovitz, Hershel
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 McQuarrie, Donald
 Memering, L. J.
 Moffett, Jack
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 Seropian, Ara, Lt.
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 Tanner, H. G.
 Thompson, G. S.
 Thomas, J. L.
 Thompson, Maria
 Thompson, R. R.
 Thompson, Thomas E.
 Van Hook, W. A.
 Willard, Paul E.

Professional Affiliation

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 Army Chem. Center
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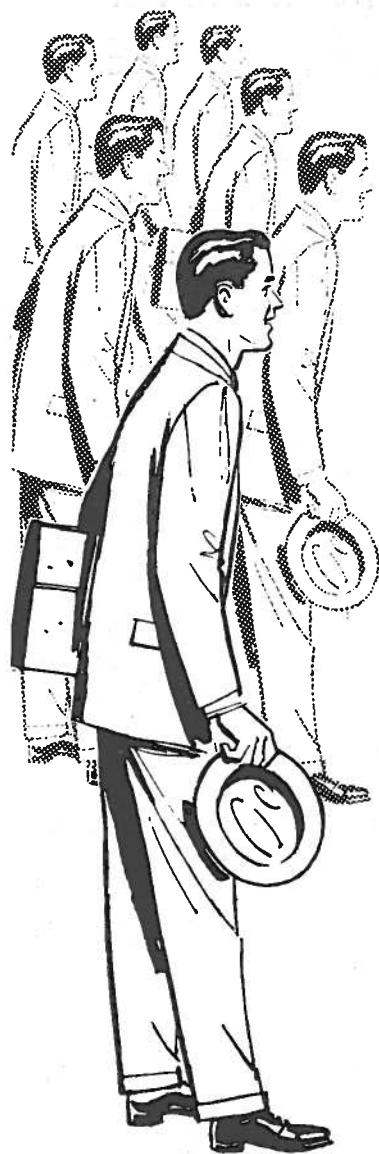
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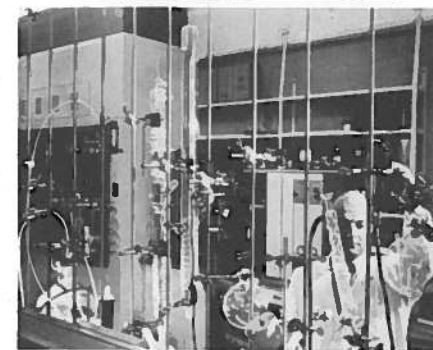
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CORRECTION—STANDARD SCIENTIFIC

In the ad for January, 1959, a typographic error was made. The ad should have read a "2 Stage Pump" instead of a "3 Stage Pump." We regret the error.

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