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FEBRUARY 1954

THE CHESAPEAKE CHEMIST

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MARYLAND SECTION
AMERICAN CHEMICAL SOCIETY

THE FEBRUARY MEETING

The next meeting of the Maryland Section will be held on Friday, February 26 at 8:30 P.M. in Remsen Hall on the Hopkins campus. The speaker will be Dr. Arthur E. Martell, a member of the faculty of Clarke University, Worcester, Massachusetts.

The subject of Dr. Martell's address is "Properties and Applications of Metal Chelate Compounds." The combination of speaker and subject will at once seem familiar to many of us; Dr. Martell is co-author with Melvin Calvin of the important reference work "Chemistry of Metal Chelate Compounds," published in 1952. Concerning his talk, the speaker states that he will discuss the factors which influence the behavior of metal chelate compounds, including the structure and basicity of the organic reagent, the electronegativity of the metal ion, entropy effects, and finally, the structure of the resulting chelate. Physical and chemical properties, particularly stability, will be correlated with the factors listed. Existing information on the behavior of metal chelates will be used to explain the principles underlying their various specific applications, including catalysis in solution, the control of metal ion concentrations in medicinal and agricultural operations, and metal titration...Chelates to some degree form a chemical world of their own, and Dr. Martell's talk promises to be a very fascinating and useful one.

The speaker is a graduate of Worcester Polytechnic Institute, and received his Ph. D. from New York University in 1941. He returned to Worcester Polytechnic as an instructor for one year, and was then appointed an assistant professor at Clarke University in 1942. He became associate professor in 1946, and is now a full professor. In addition to his studies of chelation, he has investigated the condensation of amides with carbonyl compounds, membrane electrodes, and electrical conductivity in non-aqueous solvents.

DINNER reservations should be placed by February 23 (Tuesday) with Dr. Belle Otto, Goucher College, Baltimore 4, telephone VALley 5-3305, and are preferably paid for in advance (\$2.25).

Section Officers

Chairman	William H. Summerson, Chemical Corps, Army Chemical Center, Maryland
Vice-Chairman	Belle Otto, Goucher College, Baltimore 4
Secretary	J. E. Ahlberg, 3709 Kimble Road, Baltimore 48
Treasurer	E. A. Metcalf, 907 Litchfield Road, Baltimore 42

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Editor Stephen S. Hubbard, 4123 N. Eutaw St., Baltimore 4

REMSEN MEMORIAL LECTURE COMMITTEE

Dr. Summerson, the Section Chairman, has announced the membership of the Remsen Memorial Lecture Committee for 1954: Alsoph H. Corwin, chairman; C. Jelleff Carr, W. Mansfield Clark, Winslow H. Hartford, Leslie Hellerman, H. H. Lloyd, William H. Summerson, and Lowell J. Reed, president of the Johns Hopkins University. The action of this committee in selecting the Remsen lecturer for the May meeting will be reported later.

NEWS OF MARYLAND CHEMISTS

President Harry Fisher has appointed Dr. Giles B. Cooke to membership in the Council Standing Committee on Membership Affairs, in the national organization. Dr. Cooke replaces Dr. Belle Otto, who had served as secretary since the organization of the committee in 1948.

Lt. Col. Edward S. Hopkins, a past chairman of the Maryland Section, and well known as head of the Water Purification Division for the City of Baltimore, has been given the permanent rank of full colonel in the Sanitary Engineering Section, Medical Service Corps, of the U. S. Army Reserve.

RECENT ADDITIONS TO SECTION MEMBERSHIP

The following is a partial list of those who have recently become members of the Maryland Section (including transfers):

ANDERSON, Robert, Army Chem. C.; ARNETT, Edward M., Westminster; AYER, Donald E., Army Chem. C.; BALCH, F. Carolyn, Frederick; BEARD, Harold E., Baltimore; BENES, Richard, Ft. Holabird; BERTHA, Alfred, Baltimore; BILLS, Charles E., Baltimore; BISHOFF, Donovan E., Baltimore; BIXLER, Dean A., Baltimore; BLACK, Byron W., Elkton; BROWN, T. Kenneth, Severna Park; BRUCK, Stephen D., Baltimore; BUCK, C. Austin, Army Chem. C.; CANHAM, Richard G., Baltimore; CASCADEN, Norman D., Army Chem. C.; CHATARD, J. A., Woodstock; CORNISH, Edwin R., Jr., Edgewood; DILIARD, Clyde R., Baltimore; ELDER, Thaddeus H., Jr., Baltimore; FAZZALARI, F. A., Baltimore; FUJIOKA, James S., Army Chem. C.; GARRIS, R. W., Baltimore; GELBERG, Alan, Army Chem. C.; GNESIN, Albert J., Baltimore; GRAF, L. H., Frederick; GREEN, Arda E., Baltimore; GRIFFEL, Maurice F., Baltimore; HESSE, James E., Army Chem. C.; HOGGLUND, Earl B., North Linthicum, Md.; HOLLAND, William F., Cockeysville; HONNINGFORD, N. David, Bel Air.

(to be continued)

TECHNICAL MEETINGS FEATURED

WASHINGTON SECTION--The next meeting will be the annual Hillebrand Award Banquet, to be held at the National Press Club, 14th and F Streets, on Thursday, March 4 at 7:15 P.M. The recipient of the award, announced at the January meeting, is Dr. Bernard L. Horecker, in charge of work on enzymes and metabolism at the National Institute of Arthritis and Metabolic Diseases, Bethesda. Dr. Horecker is being honored for discoveries of new enzymes involved in a recently discovered scheme of carbohydrate metabolism which includes interconversion of 5-, 6-, and 7-carbon sugars. The main speaker at the meeting will be another authority in the field, chosen by Dr. Horecker. The Washington Section sincerely hopes that some of our members will attend, because it is their highlight program each year. Arrangements for attending may be discussed with Dr. Summerson.

BALTIMORE--JOINT MEETING OF ALL ENGINEERING SOCIETIES--The Engineers Club of Baltimore, and its affiliates, of which the Maryland Section is one, will sponsor a meeting to be held in the auditorium of the Baltimore Polytechnic Institute, Thursday, February 25, at 8:00 P.M. Dr. Irving P. Krick, president of the Water Resources Development Corporation of Denver, Colorado, will speak on "Assessing the Value of Cloud-Seeding Operations." The talk will cover the following aspects of scientific rain stimulation: history; basic principles and methods of cloud-seeding; procedures for determining the relative amounts of natural and artificial rainfall from a seeded cloud mass in which a storm occurs; economic evaluation of rain produced by seeding, from various agricultural, industrial, and municipal viewpoints; estimates of future expansion and effects of professional weather modification. Dr. Krick was formerly professor of meteorology at the California Institute of Technology, and later served with the Air Force as deputy director of weather services in Europe in World War II. He is widely consulted on many phases of meteorology, and the corporation which he now heads is one of the first successful commercial rain-making organizations in the country.

PITTSBURGH--The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy will be held at the William Penn Hotel from March 4 to 5. This annual conference is sponsored jointly by the Spectroscopy Society of Pittsburgh, and the Analytical Division of the Pittsburgh Section, ACS. Registration will begin at 8:30 A.M., March 4, in the Fort Duquesne Room (fee, \$2.00; students, \$1.00); hotel accommodations must be arranged personally by those attending. Advance registration may be made with Dr. Benjamin N. Nelson, Registration Chairman, Box 4353, Pittsburgh 30. The program includes a large number of papers in the subject topics; industrial tours (Alcoa, H. J. Heinz Co.); an employment service; and an extensive exhibit of modern laboratory equipment. At the conference dinner on March 3, the speaker will be Dr. J. H. Yoe, director of the Pratt Trace Analysis Laboratory of the University of Virginia.

MARYLAND SECTION--MARCH MEETING--Save March 19 for an outstanding meeting at Edgewood. President Fisher will speak!

HISTORICAL NOTES ON THE MARYLAND SECTION

I. Origin and Chartering (1911-1914)

Introduction--During the period since mid-1945, THE CHESAPEAKE CHEMIST has provided a running record of the activities of the local section. At a recent meeting of the Executive Committee, it was pointed out, informally, that this record could be extended back to the beginning of the Section, and become available within THE CHESAPEAKE CHEMIST file by publishing here a series of items on Section activities prior to 1945. This year seems a fitting time to begin, since the fortieth anniversary of the chartering of the Section will occur in September, 1954.

The Period 1911-1914--Although the Maryland Section was not chartered until September 23, 1914, the group existed in effect as a branch of the Washington Section for about three years before it became independent. Baltimore was officially active at certain times still earlier, having been host to the 8th and 39th national meetings of the Society in 1893 and 1908, respectively.

The first move toward a formal organization of chemists in the Chesapeake Bay area is recorded in the minutes of a "preliminary meeting of the chemists of Baltimore, looking to their organization," held in the assembly room of the old Johns Hopkins Club, March 8, 1911. Among those present were Dr. S. F. Acree (of the Hopkins graduate faculty), who opened the meeting, and Dr. W. B. Penniman (of the firm of Penniman and Browne), who was elected temporary chairman. The main action was an agreement that chemists in the area should be organized as a sub-section of the Washington ACS section, and the appointment of a committee (Dr. Acree, H. F. Baker, and C. Glaser) to confer with the Executive Committee of the Washington Section on that point. The group evidently wanted action; the committee was instructed to report within fourteen days!

At a second meeting on March 22, 1911 in Hopkins Hall (on the former downtown campus of Hopkins) Dr. Remsen spoke in favor of the general purpose of the group, and offered the use of Hopkins Hall for regular meetings. The report of the committee on organization was accepted after some discussion, and a motion carried to proceed at once to organize and elect officers. The substance of the report was that negotiations with the Washington Section had been completely successful, and that their by-laws would be altered as soon as possible to allow for the addition of the Baltimore branch.

A little later, in April, there was another Baltimore meeting, although the election of officers was apparently deferred, since there is no record of a definite slate and ballot until the meeting of March 1, 1912. This date also marks the final acceptance of a constitution for the Baltimore branch, which had been submitted to the membership late in 1911. The official title of the group became the Baltimore Branch of the Washington Section of the American Chemical Society. The Washington officers allowed considerable independence in the government of the local group,

including the choice of the number of officers, the conducting of an information bureau, and extensive by-laws. The chairman and the secretary were ex-officio members of the Executive Committee of the Washington Section. Two joint meetings were required each year, one in April and one in November, in Baltimore. (Incidentally, local dues are one item that has not undergone inflation--at that time they were two dollars a year!). The officers elected were William Simon, Chairman; Wyatt W. Randall, Vice-Chairman; C. P. Van Grundy, Secretary-Treasurer; C. C. Blackshear and B. F. Lovelace, members-at-large of the Executive Committee. Ira Remsen and S. F. Acree, as councillors, were ex-officio members of the Committee.

Even at this important business meeting, a technical paper was presented. H. A. B. Dunning (of Hynson, Westcott, and Dunning) spoke on "Phenolsulfonphthalein and Its Use in Medical Diagnosis." At the next local meeting on March 29, one paper which must have been of considerable interest at the time was a centennial review of the Avogadro Hypothesis and its consequences.

At the first joint meeting with the parent section, attended by eight Washington members, H. N. Morse described some of his celebrated work on osmotic pressures--measurements in the range 25°-70°C. Three other papers, all on analytical topics, were presented. "Artificial" rubber, as it was called, was of sufficient interest to occasion a review of recent work at the October meeting. E. C. Franklin, of the U. S. Hygienic Laboratory, spoke on "Liquid Ammonia" early in 1913.

Late in 1913 the officers suddenly felt discouraged by what they considered rather limited participation and interest on the part of the membership, and called a special meeting to determine whether the Baltimore branch should be continued. Attendance had generally been 25-35, and little original work had been reported by members--the latter is an interesting light on what was then supposed to be the main purpose of local meetings, technically speaking. However, the general membership did not believe that the discouragement was justified, and it was decided to continue the meetings, with a suggestion thrown in that more emphasis be placed on refreshments! As a result, the January meeting was held at the Hotel Rennert, but in February, the use of Hopkins Hall was resumed.

The meeting of April 4, 1914 was outstanding. C. S. Hudson spoke on "The Action of Enzymes on Compound Sugars." Also, the idea of forming an independent local section was advanced for the first time since the question had been settled in 1911. Dr. Acree introduced it. The members were unanimously in favor of the proposal, and moved that Dr. Acree, then Chairman, appoint a committee to draft a petition to the ACS Council, to be signed by the local members at the May meeting. These signatures were obtained on May 2, at the last meeting, on a branch basis, held with the Washington Section.

The Baltimore secretary, then F. M. Boyles (of the McCormick Co.) requested on May 13 that the Washington Section (to page 10

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from page 9) Historical Notes

waive its jurisdiction to all territory in the State of Maryland north of the parallel through the City of Laurel, pending the formation of a separate local section with headquarters in Baltimore. This waiver had been obtained informally by June 1, when the petition and letter of application were sent to Charles L. Parsons, the national secretary. The signers of the petition were S. F. Acree, F. M. Boyles, F. C. Blanck, J. Alexander, Charles Caspari, Jr., J. C. W. Frazer, C. Glaser, C. P. Van Grundy, H. R. Gundlach, W. A. Gruse, J. R. Holland, H. Engelhardt, W. H. Maynard, W. W. Randall, R. K. Meade, J. H. Shrader, W. B. Penniman, J. B. Thomas, S. W. Wiley, and Conrad Zieget.

Chartering and First Meeting of the Maryland Section, 1914--

The Board of Directors of the ACS approved the request for a charter on September 21, and the document was signed on September 23 by Theodore W. Richards, then President, and by Secretary Parsons. The text of the charter reads "By authority of the Directors and the Council of the American Chemical Society, a local section of that Society, to be known as the Maryland Section, with headquarters at Baltimore, Md., and embracing the territory in the State of Maryland lying north of the parallel passing through the city of Laurel, Md., is hereby established."

There were 90 charter members of the Maryland Section, of whom 75 were resident in Baltimore. Most of the remainder lived nearby, but there was one each from Frederick and Hagerstown. One of the local firms, the U. S. Asphalt Refining Co., was a charter member. Dr. E. Emmet Reid came in "under the wire," having moved to Baltimore from Jersey City on September 3, 1914.

The first meeting of the Maryland Section was held at Hopkins Hall on October 10, 1914, with 31 in attendance. The meeting was called to order by C. P. Van Grundy, the Vice-Chairman. After the granting of the charter was announced, it was moved and passed that the by-laws of the old Baltimore branch, with such changes as were necessary, be adopted by the new section. The following officers were elected: W. B. Penniman, Chairman; J. C. W. Frazer (of the Hopkins faculty), Vice-Chairman; F. M. Boyles, Secretary-Treasurer. J. H. Shrader and Mr. Van Grundy were elected members-at-large of the Executive Committee. This Committee was immediately charged with its first task--to find a new meeting place, since the Hopkins Club had decided to forbid the holding of smokers there in future; smokers were a regular after-meeting feature. Dr. Charles Glaser presented the paper--"The Catalytic Decomposition of Bornyl Chloride by Copper." This was followed by a "general" discussion, which was somewhat unusual at that time; the records indicate that the discussions were usually led by specific members.

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Succeeding periods in the history of the Maryland Section will be described in future issues of THE CHESAPEAKE CHEMIST.

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from page 12) Executive Committee Minutes

Dr. Summerson then spoke of future activities, and expressed great interest in the projected television programs. He suggested that action might be expedited by carrying in the January issue of THE CHESAPEAKE CHEMIST a prominent request that anyone with previous experience along this line offer his services to the special committee working on the plans...He then summarized meeting plans for the next few months, ending with the Remsen Lecture in May; a proposed joint meeting with the Washington Section in April was still in doubt...He suggested that the Executive Committee give some thought to expanding THE CHESAPEAKE CHEMIST to a regular printed publication carrying a substantial amount of paid advertising; this move would, of course, require a full staff of editors...Dr. Summerson then urged the members to think of ways in which the Section might take part in the Civil Defense program; suggestions will be welcomed...He explained that the Committee on Manpower is on a "stand-by" status, awaiting a definition of objectives from the Washington office.

Among miscellaneous items, it was moved and carried that the Section would continue its support of the annual joint meeting of engineering societies, sponsored primarily by the Engineers Club of Baltimore. It was agreed that we would comply, if possible, with Dr. Herculson's request that the April, 1955 meeting of the Section be held at Morgan College in connection with the dedication of the new chemistry building there.

The meeting was adjourned.

H. H. Lloyd

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Recent accessions at the Pratt Library, Main Branch, include: Bosworth, R. C. L., Heat Transfer Phenomena, 1952. De Ong, E. R., Insect, Fungus, and Weed Control, 1953. Digestive Ferments Co. (Difco, Laboratories, Detroit), Difco Manual of Dehydrated Culture Media and Reagents for Microbiological and Clinical Laboratory Procedures, 9th ed., 1953. McFarlane, S. B., ed., Technology of Synthetic Fibers, 1953. Wagner, R. B., and Zook, H. D., Synthetic Organic Chemistry, 1953. Whistler, R. L., and Smart, C. L., Polysaccharide Chemistry, 1953.

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Quantitative Organic Analysis Via Functional Groups, by Sidney Siggia, has been released in its second edition by John Wiley and Sons. The text has been greatly revised along the lines of modern practice. The book is widely known for its exclusive attention to functional groups, and as a finger-tip reference in industrial laboratories. Ineffective procedures have been deleted, and the new material includes the use of phase diagrams in organic analysis of mixtures.

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PAGE NUMBERING in THE CHESAPEAKE CHEMIST will be continuous throughout the volume, beginning this year.

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NEXT MEETING February 26 TIME 8:30 P. M.
PLACE Remsen Hall, Johns Hopkins, Charles and 34th Streets
SPEAKER Dr. Arthur E. Martell, Clarke University
SUBJECT Properties and Applications of
Metal Chelate Compounds
DINNER 6:30, The Johns Hopkins Club, Charles and 34th Streets

SAVE Thursday, February 25 for an important meeting of engineering societies in Baltimore (see page 7). Your section is helping to support this!

SAVE March 19 for the meeting at the Army Chemical Center.

EXECUTIVE COMMITTEE MINUTES

The Executive Committee of the Maryland Section met on December 15, 1953 at the home of Chairman and Mrs. Hartford. Fourteen members were present. The primary purpose of this meeting was the transfer of operations to the new group of officers who would assume their duties as of January 1.

The meeting opened with a review of recent correspondence from the Washington office, which dealt largely with the acknowledgments of local action already completed, and other matters of routine. The only items of general interest were that the membership divisor which determines the number of councillors is still 280 (entitling the Maryland Section to four councillors), and that the rescinding of corporation membership requires no changes in the local by-laws; corporations may now be only associates of the Society.

Among committee reports, Dr. Forman reported for the Committee on Television that the group would meet to make definite plans. He was asked to obtain more information about a movement in Baltimore to obtain the assignment of Channel 24 for educational purposes, since the realization of this might fit in with program plans of the Section.

Dr. Hager stated that the Committee on Chemical Education is considering a program of talks to parents, as part of its continuing activity.

The Committee on Nominations and Awards, which reported completion of its regular assignment, presented, in the name of the Section, a pen set to the outgoing secretary, Dr. Lloyd, in appreciation of his long and faithful service.

Dr. Hartford turned the meeting over to the new chairman, Dr. Summerson, who welcomed the group, and stated that he was beginning his new duties by considering appointments to membership in standing committees. In this connection it was moved and carried that Dr. A. H. Corwin be asked to head the Remsen Committee for 1954; this action was occasioned by the fact that at present the Chemistry Department at Hopkins has no chairman; the latter is normally chairman of the subject committee. (to page 11