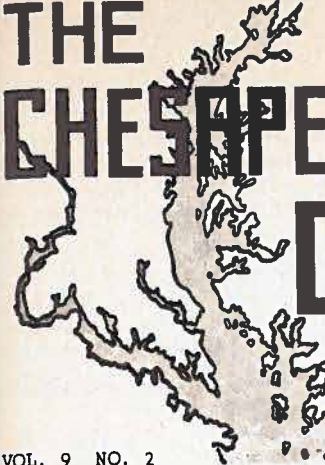


# THE CHESAPEAKE CHEMIST



FEBRUARY 1953

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## THE FEBRUARY MEETING

Dr. Farrington Daniels, 1953 President of the American Chemical Society, will be the honored guest of the Maryland Section at their next meeting on Tuesday, February 17. The subject of his talk will be "Our Future Sources of Energy". While we are abundantly supplied with fuel, produced in ages past by photosynthesis, how long will it last? What will our descendants do when it is gone? Our machines in the United States now require 50 times as much energy as our people require for food. Dr. Daniels predicts that ways will be found to use atomic energy and solar energy. Although nothing quick or revolutionary is in sight, scientific research will help to meet the needs. He will discuss the facts regarding atomic power, how it will be used, what the problems are, and how long it will last.

Dr. Daniels feels that solar energy is our most certain long-range source, but its temperature is too low for present economical production of industrial electricity by conventional engines. What are other possibilities? How efficient is agriculture? Can this efficiency be greatly improved? Along what lines should long-range fundamental research be conducted? These and other related questions will be brought up for discussion by the speaker.

A Midwesterner by birth (Minneapolis, Minnesota), Dr. Daniels is a descendant of the founders of New England. Deciding on a career in chemistry while in high school, he attended the University of Minnesota and received his B.S. in 1910 and his M.S. in 1911. He came east to Harvard and received his Ph.D. in 1914. Remaining in the east for six years, he was Instructor and Assistant Professor at Worcester Polytechnic Institute, 1st Lieutenant in the Chemical Warfare Service in 1918, and an electrochemist in the Fixed Nitrogen Research Laboratory in Washington. In 1920 he returned to the Middle West when he received one of the first two appointments made by the new chairman of the Chemistry Department of the University of Wisconsin, Dr. J. H. Mathews. (to page 2)

## Section Officers

Chairman Winslow H. Hartford, Mutual Chemical Company  
of America, Baltimore 31

Vice-chairman William H. Summerson, Chemical Corps,  
Army Chemical Center, Maryland.

Secretary H. H. Lloyd, Goucher College, Baltimore 4

Treasurer E. A. Metcalf, 907 Litchfield Road, Baltimore 12

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Westminster, Maryland.

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Corporation, Baltimore 3

from page 1) The February Meeting

Thirty-two years later when Dr. Mathews retired, Dr. Daniels acceded to the chairmanship. He has held visiting professorships at Stanford and Cornell, has been associate director and later director of the Metallurgical (atomic energy) Laboratory in Chicago, 1944-46, and Chairman of the Board of the Argonne National Laboratory, 1946-48.

He is author or co-author of over one hundred scientific publications resulting from his researches in the fields of chemical kinetics, nitrogen oxides, fixation of atmospheric nitrogen, photosynthesis, atomic power, solar energy, thermoluminescence of crystals, and the geochemistry of uranium. Fifty students have earned the Ph.D. under his direction and a dozen research men are currently at work under his direction. Four books bear his name as author or co-author, including "Outlines of Physical Chemistry".

Dr. Daniels has been a member of the ACS since 1909 and has served the Society in many capacities; as Chairman and Councilor of the Wisconsin Section, Chairman of the Division of Physical and Inorganic Chemistry, a member of the Board of Directors and its Publication Committee, and an Associate Editor of the Journal of the American Chemical Society for ten years. At the present time he is an Associate Editor of ACS Monographs and a member of the Committee of Liaison of the Department of Defense. He is a member of the National Academy of Sciences, the American Philosophical Society, American Association for Advancement of Science (of which he was Vice President for Chemistry in 1937 and 1947), Sigma Xi, Alpha Chi Sigma, and the Faraday Society.

A dinner in honor of Dr. Daniels will be served at 6:30 at the Johns Hopkins Club, and is open to members of the section and their guests. Reservations should be made not later than Friday, February 13, with Dr. W. H. Summerson at 504 W. University Parkway, Baltimore 10, by phone at TUXedo 8787, or BELmont 0400 and leave a message.

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Have you sent in your 1953 dues and Remsen Memorial contribution?

FARRINGTON DANIELS

by

Charles A. Boyd

When scientists have exhausted the possibilities of the new sources of energy now confronting us, they may very well turn their attentions to the problem of where Professor Daniels gets the energy to discharge the many important responsibilities that he now holds. However, to those of us who have had the privilege of working with him in his laboratory, the fact that he does discharge these responsibilities effectively is not surprising. We have heard of or seen many examples of his indefatigable persistence, such as his work with a temperamental gas density balance that would only function properly at four in the morning, or the occasion when he designed and finally made a glass diaphragm pressure gage that the glassblower said was impossible. We could be sure that any time our experiments reached a crucial stage "Danny" would always be close at hand eager to learn the results. If the experiment was a failure, he radiated optimism for the next try, even though his disappointment was equal to, or greater than ours. If it was successful, his enthusiasm was contagious and his praise liberal.

We have never ceased to be amazed at the broad scope of his research interests. He has published papers on subject ranging from the controversial quantum yield in photosynthesis to the geochemistry of Mexican volcanoes. He also holds a patent on a very good shaving soap.\* He has pursued a study of the kinetics of the reactions of the oxides of nitrogen, which has led him from the maze of laboratory apparatus and experiments, through the frustrating pilot plant stage, to a large nitric acid producing plant. It is characteristic of Professor Daniels that his motivation for the later stages of this process was the possibility of providing cheaper sources of fertilizer to help the more backward agricultural areas of the world.

Perhaps his ability to maintain such a strenuous schedule can be attributed in part to the well balanced aspect that his everyday living presents. Along with his intense scientific interests, he finds time to participate actively in the program of his church. At the present time he is serving as moderator. Recently he completed an engineering project in constructing a sea wall in front of his summer home on Lake Michigan. However, the chief responsibility for the supervision of this project lay with the oldest of his four grandchildren.

Professor Daniels is intensely interested in the role of science in modern society, and in the establishing of mutual understanding between the scientist and his fellow man. As a result this has led to the organization of a special senior course at the University of Wisconsin on Contemporary Trends in Modern Civilization with Professor Daniels as Chairman of the Committee. This feeling is also manifested in his relationships with his graduate students. By example, he tries to help them develop not only into good scientists, but also into good citizens.

\* Editor's note:- Free advertisement?

## NOMINATIONS AND AWARDS

by

Belle Otto

The Maryland Section has a Committee on National Nominations and Awards, whose function it is to channel to the appropriate national committees any suggestions which ACS members in this area may wish to make regarding possible nominees for national offices and awards. The individual member of the Society has the privilege of making such suggestions personally, hence the local committee serves only to remind him that he may either do it himself or pass his ideas on to the committee and let them do the chores. The local committee for 1953 consists of Duncan MacRae (Chemical Corps, Army Chemical Center, Maryland), Channing W. Wilson (4422 Westview Road, Baltimore, Maryland) with Belle Otto (Goucher College, Towson 4, Maryland) as chairman. Any member of the committee will welcome the names of any likely candidates for the offices or awards herein described.

There are three categories for which possible candidates are solicited. One is a group of national officers - President-elect, director-at-large, and members of the Council Policy Committee. This group is discussed on the Secretary's Page in C&EN for January 12 (page 174). Any suggestions for these offices should be made at once, since all names and supporting data must be in by March 2.

A second category includes the awards administered by the Society - thirteen in all. These are:

American Chemical Society Award in Pure Chemistry  
Borden Award in the Chemistry of Milk  
Charles Lathrop Parsons Award  
Eli Lilly and Company Award in Biological Chemistry  
Fisher Award in Analytical Chemistry  
Fritzsche Award  
Garvan Medal  
Ipatieff Prize  
Kendall Company Award in Colloid Chemistry  
Paul-Lewis Laboratories Award in Enzyme Chemistry  
Precision Scientific Company Award in Petroleum Chemistry  
Priestley Medal  
Scientific Apparatus Makers Award in Chemical Education.

Details about qualifications for these awards appear from time to time in C&EN. Suggestions must be in the hands of the national committees by June. Your local committee would like to start action by April 1 for any proposals it may make.

The third category is a group for which no active request for suggestions is commonly made, yet it includes by far the greatest number. The work of the Society is carried on in large measure by the unselfish efforts of all those who labor on its many committees. If you know of anyone who, by virtue of special qualifications, might give real help to the Society, please send his name to the Executive Secretary of the Society or tell your local committee. They will carry on from there.

## ACTIVITIES, NEWS AND MEETINGS

The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, sponsored by the Analytical Chemistry Group, Pittsburgh Section, American Chemical Society, and the Spectroscopy Society of Pittsburgh, will be held at the Hotel William Penn, Pittsburgh, Pennsylvania, on March 2 through 6. This year's affair will stress the field of application in Applied Analytical Chemistry. The balance of the program is informative and well rounded, and includes over one hundred papers covering many phases of A.S.T.M. Committee E-14 is co-sponsor of the sessions on Mass Spectrometry. Other A.S.T.M. committees that will meet are D-2, E-2, E-13, and E-14. The general session is scheduled for Wednesday morning, March 4.

On Tuesday, March 3, at the Welch Medical Library, Johns Hopkins Medical School, a one day symposium will be held on Machine Techniques in Scientific Documentation. This symposium is being organized by the Medical Indexing Project in cooperation with the Division of Chemical Literature of the American Chemical Society, Special Libraries Association, and the American Documentation Institute. The registration fee is three dollars, which includes lunch in the Great Hall as well as morning coffee. Each visitor will receive in advance of the meeting copies of Project papers to be presented and literature on the functions of punched card and other equipment. It is hoped that this will result in a symposium with active participation of the visitors. A complete program will probably appear in Chemical and Engineering News in the near future.

Dr. Edward U. Condon will deliver the third annual Samuel Newton Taylor Lecture at Goucher College on Wednesday, February 18, at 8:45 P.M. His subject will be "Taking a Chance in Physics", a presentation of the Uncertainty Principle and other topics. The two previous lecturers have been Dr. Harold Urey and Dr. Karl T. Compton. This lecture is open to the public without charge and will be given in Catherine Hooper Hall at 2404 St. Paul Street in Baltimore. Dr. Condon will also be on the Towson campus, February 18 and 19, for informal talks and seminars. The speaker is a former director of the Bureau of Standards and is now Director of Research and Development at Corning Glass and President of the American Association for the Advancement of Science.

The Maryland Section welcomes the following new members and invites them to actively participate in the meetings and affairs of the section.

Frank Davis	Joseph Mandelson
Richard J. Ess	Paul W. Miller
Roger Eyles <sup>o</sup>	John W. Murphy <sup>o</sup>
Kenneth R. Gerhart	Lowell W. Parke
George W. Harmon	Frank Shanty
Bryant E. Harrell, Jr.	Erich Sokolower <sup>o</sup>
Robert N. Isbell	Peter V. Susi
Arnold R. Johnson, Jr. <sup>o</sup>	Jerome D. Swalen
George McGrew <sup>o</sup>	Alfred J. Zaehringer

<sup>o</sup> Junior members

(to page 6

from page 5) Activities, News and Meetings

The following list completes the roster of committee members of the Maryland Section for 1953. The names of the chairmen, which are underlined, were published in the January issue.

Program - W. H. Summerson, E. A. Metcalf, Evans B. Reid

Membership - C. J. Carr, J. E. Ahlberg, A. G. Horney

Publicity - Stephen S. Hubbard, W. H. Summerson

Publications - A. H. Corwin, Stephen S. Hubbard, J. L. Straughn

Nominations and Awards - (see page 4)

Hospitality and Meeting Attendance - R. L. Costa, Lloyd Felton, Joyce Kaufman, Don Lancasty, D. H. Lazenby, E. Stapleton, (others to be added)

Remsen Memorial Lecture - W. Mansfield Clark, Detlev W. Bronk, A. H. Corwin, Giles B. Cooke, W. H. Hartford, H. H. Lloyd, S. B. Schofield

Manpower - Giles B. Cooke, Evans B. Reid, F. C. Hettinger, H. H. Lloyd, G. P. Hager, W. H. Summerson, C. W. Wilson

Chemical Education - George P. Hager, Sylvan Forman, J. N. Gryder, Evans B. Reid, J. L. Straughn.

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from page 7) Report of the Secretary for 1952

many projects that furthered the varied interests and activities of the Section, including selection of committee personnel. The functions of the Hospitality Committee were greatly expanded. Two new committees, one concerned with manpower and the other with chemical education, were established. Arrangements were completed looking toward a desirable re-definition of the geographical territory of the Section.

Alsoph Corwin, Duncan MacRae, and Belle Otto represented the Section at both the April and the September meetings of the ACS Council; they were joined at the April meeting by Giles Cooke, who was prevented by business demands from attending the fall meeting. Belle Otto continued to serve as secretary of the Council standing committee on membership affairs.

THE CHESAPEAKE CHEMIST appeared regularly throughout its 8th year under the able editorship of Belle Otto. After repeated requests on the part of Miss Otto to be relieved of the editorship, the Executive Committee secured Lloyd Straughn as editor and Stephen Hubbard as associate editor, beginning January 1953.

The secretary cannot refrain from commenting on the unselfish devotion and effective service of all who were charged with tasks and responsibilities in behalf of the Section during the year 1952.

H. H. Lloyd, Secretary

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Editor's note: Dr. Charles A. Boyd, who wrote the article on page 3, was at the Argonne National Laboratory with Dr. Daniels and did his doctoral research under him at the University of Wisconsin. He is now at Camp Detrick, Frederick, Maryland.

REPORT OF THE SECRETARY FOR 1952

As of December 4, 1952, 834 Maryland chemists were paid A.C.S. members, including 4 emeritus members. The net gain of only ten for the year was due largely to removal at Army Chemical Center rather than to a paucity of new members. The Section has 26 associate members and sends THE CHESAPEAKE CHEMIST to 953 persons and groups, including 39 exchanges with other Section publications. Because of an increase in the member-councilor ratio to 280, the Section will be entitled to only three councilors in 1953.

Six special features marked the 1952 meeting programs. In February, the second meeting-in-miniature was held on the Hopkins campus. Three simultaneous late-afternoon sessions were devoted to papers on Industrial and Engineering Chemistry, Inorganic and Physical Chemistry, and Biological and Medicinal Chemistry. Dinner was served at 6:30 P.M. Three simultaneous evening sessions were devoted to papers on Industrial and Engineering Chemistry, Analytical Chemistry, and Organic Chemistry. Exhibits of laboratory and industrial safety equipment, with refreshments available, were on display starting at 9:30 P.M. Attendance at dinner, 89; at sessions, 225. In March, the Section was the guest of the Biological Laboratories of the Chemical Corps, Camp Detrick. The program comprised a social half-hour, a dinner, and a presentation of a paper on Plant Growth Regulators by A. G. Norman and R. L. Weintraub. Attendance, 125. In May, following a social hour and dinner (attendance, 82), Wm. Mansfield Clark gave the seventh Remsen Memorial Lecture and was awarded the testimonial scroll (attendance, 225). In September, the first "Family Night" attracted 90 persons to an outdoor supper, followed by a showing of the film, "The duPont Story". In October, Maryland chemists were guests of the Chemical Corps, Army Chemical Center. A social half-hour and dinner (attendance, 125) were followed by talks on Radiological Defense by Brigadier-General Creasy, George B. Wilson, and James P. Mitchell (attendance, 225), with refreshments available. In December, a cafeteria dinner, plant inspection, and lecture were arranged through the courtesy of Locke Insulator division of General Electric Company. Attendance, 50.

Three regular meetings were also held, with the following speakers participating: Robert D. Stiehler (Bureau of Standards), R. H. Baechler (Forest Products Laboratory), and Frank L. LaQue (International Nickel Company). Attendance at dinner averaged 45; at the meeting, despite unfavorable weather, almost 60. The total attendance for the year (nine programs) was 600 (8.0%) at the dinners and 1150 (15.3%) at the meetings. This compares favorably with local section attendance throughout the country. The Maryland Section is grateful to The Johns Hopkins University for its generosity in providing rooms for regular Baltimore meetings and to Herman Bittner (of the University) for his services in connection with the physical requirements for the meetings.

The Executive Committee held three meetings (March, October, December) with a minimum attendance of 16. All regular and special committees functioned actively. Close cooperation with the officers and committee chairmen resulted in (to page 6



Dr. Daniels

NEXT MEETING February 17 TIME 8:30 P.M.  
PLACE Room 101, Remsen Hall, Johns Hopkins  
Charles and 34th Streets  
SPEAKER ACS President, Dr. Farrington Daniels  
SUBJECT Our Future Sources of Energy  
DINNER 6:30, The Johns Hopkins Club  
Charles and 34th Streets

The meeting is open to any who are interested.  
Save Friday, March 27, for the next meeting to  
be held at Camp Detrick, Frederick, Maryland.

## EXECUTIVE COMMITTEE NOTES

The Executive Committee met on Tuesday evening, December 16, 1952, at the home of Chairman and Mrs. Hellerman. Sixteen members were present.

The Secretary reported that the paid membership of the section was 834 as of December 1, 1952, and consequently the section is entitled to only three councilors and three alternates for 1953.

The Secretary reported that agreement had been reached with the ACS Committee on Local Section Activities with regard to revision of the definition of Maryland Section territorial boundaries in accordance with action taken at a previous meeting of the Section Executive Committee and that the ACS Council would take action at its meeting in the spring.

Giles Cooke reported for the Committee on Nominations and Awards. This committee was warmly thanked for its activity in proposing Maryland chemists for national offices and awards.

Jelleff Carr reported for the Committee on Membership. Application blanks and literature were mailed to prospective members.

Chairman Hellerman voiced the appreciation of the Executive Committee to Belle Otto for her effective service as editor of THE CHESAPEAKE CHEMIST and in token thereof presented her with a weekend case. Miss Otto in turn expressed her gratitude.

The remainder of the meeting was turned over to Chairman-elect Hartford for informal discussion of Section activities in 1953. Because of the importance of monthly meetings, efforts will be made to encourage attendance. The functions of the Committee on Hospitality will be expanded. The possibility of participation in the Washington's Section Voice of Chemistry FM radio program will be investigated. A special interests meeting may be held in the fall, possibly another meeting-in-miniature or a symposium (with the cooperation of neighboring Sections). It might be well to arrange two simultaneous meetings on a regular meeting night, with the groups united afterwards for a social hour. The discussion included other matters along with committee personnel.

H. H. Lloyd, Secretary

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