



THE **CHESAPEAKE**
CHEMIST

MARYLAND SECTION
AMERICAN CHEMICAL SOCIETY

VOL. XXIV

NOVEMBER, 1968

NUMBER 8

NOVEMBER MEETING

Wednesday, 20th November, 1968

5:30 P.M. Dr. Samuel O. Grim
*"Phosphorus NMR Studies in Coordination
Compounds"*

6:30 P.M. Cocktails

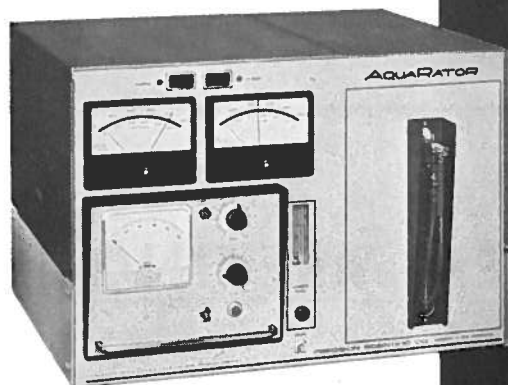
7:15 P.M. Buffet Dinner

8:20 P.M. Election of 1969 Officers

8:30 P.M. Dr. Sidney Siggia
"Fads and Fashions in Chemical Analysis"

Details Inside

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The Chesapeake Chemist is published monthly September through May by the Maryland Section of the American Chemical Society. Address editorial comments to Dr. James Leslie, University of Maryland, 636 W. Lombard St., Baltimore, Md. 21201. Address advertising inquiries and plates to Lionel Katzoff, Sinai Hospital of Baltimore, Inc., Belvedere Ave. at Greenspring Ave., Baltimore, Maryland 21215.

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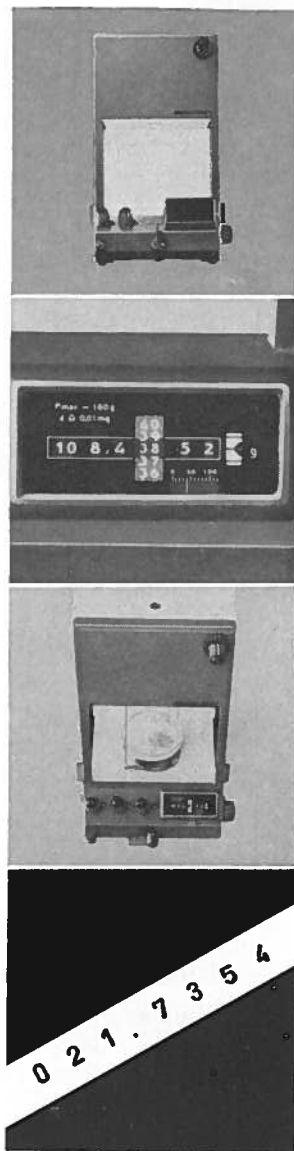
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NOVEMBER MEETING

ELECTION OF SECTION OFFICERS

The election for the 1969 Officers of the Maryland Section of the American Chemical Society will be held prior to the 8:30 lecture. A list of nominations was published in the October issue of the *Chesapeake Chemist*.



DR. SAMUEL O. GRIM



DR. SIDNEY SIGGIA

DATE:

Wednesday, November 20, 1968

PLACE:

Eudowood Gardens, Eudowood Plaza,
 Joppa Road near Goucher Boulevard.
 Free parking.

SPEAKERS AND TOPICS:

5:30 P.M. Dr. Samuel O. Grim, Professor of Chemistry, University of Maryland, College Park, Md. "*Phosphorus NMR Studies of Coordination Compounds*" (see page 15).

8:30 P.M. Dr. Sidney Siggia, Professor of Chemistry, University of Massachusetts. "*Fads and Fashions in Chemical Analysis*" (see page 18).

Biographies of Dr. Grim and Dr. Siggia are presented on pages 15 and 18, respectively.

COCKTAILS AND DINNER:

Eudowood Gardens Dining Room. Price is \$4.00 per person for cocktails (6:30-7:15) and hot buffet dinner (7:15). Reservations must be received not later than November 19. Use reservation form on page 15. We encourage you to bring your wife and friends to both the dinner and the meeting.

SOCIAL HOUR:

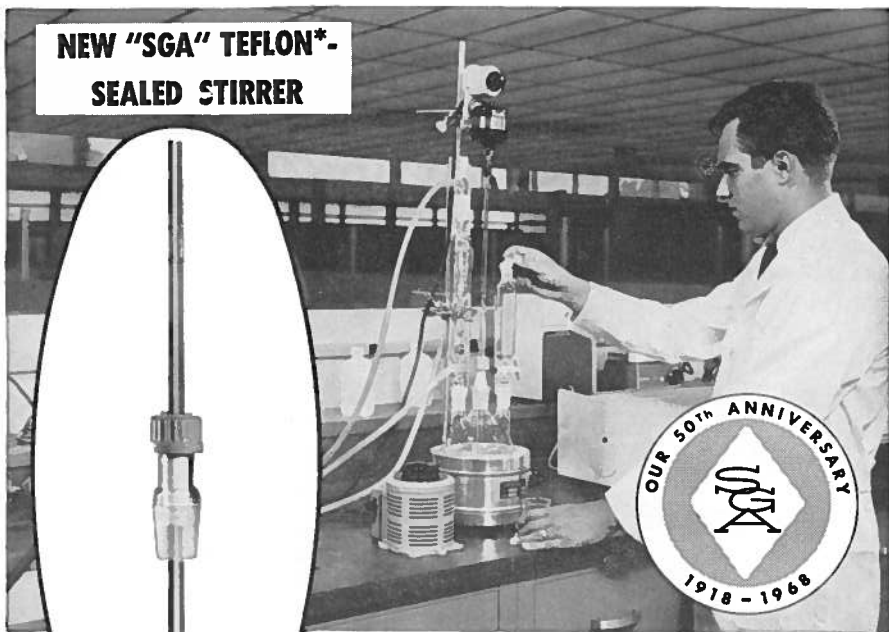
There will be a social hour after the meeting. Refreshments will be served. All are welcome.

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EXECUTIVE COMMITTEE MINUTES

Minutes of the Executive Committee Meeting of the Maryland Section of the American Chemical Society held on September 23, 1968 at Loyola College

The meeting was called to order at 8:16 p.m. Present were:

Don Jones, Brown Murr, Tom Simmons, Al Bednarczyk, Al Dietz, F. T. Parr, J. Cogliano, H. Delaney, William Stahl, R. J. Kokes.

The minutes were accepted as presented in the September issue of the *Chesapeake Chemist*.

The treasurer, Thomas Simmons, reported that the cash on hand as of September 19 was \$6,714.29.

The membership chairman, Joe Cogliano, reported on the policy of inviting potential new members to attend dinners prior to meetings as guests of the Section. Although acceptance was not universal, it was agreed the practice should continue.

The chairman discussed the possibility of changing the Maryland Award from a scroll to a plaque. By consensus it was agreed that the scroll was preferable. It was also noted by the chairman that the Section should submit suggestions for officers for the 1970 national ACS elections. Although potential nominees for all offices should be considered, it is most important that we submit names for the office of Regional Director.

The Chemical Education Committee chairman, Brown Murr, reported that he had sent out invitations to local high school teachers for the chemical education program in October. He expects the response will not be overwhelming. Nevertheless, he intends to continue throughout his tenure to invite selected high school teachers to be dinner guests of the Section at our regular meetings.

Once again, the role of chemical technicians in the Section was discussed. It was agreed that Brown Murr would establish contact with institutions in the area that have chemical technology pro-

grams in order to determine the feasibility of establishing a chemical technology affiliate group under the aegis of the local section.

Al Bednarczyk, chairman of the House Committee, discussed the need for a projection screen at local meetings. At the present time, the screen used is not the property of the Section; hence, special arrangements must be made to make sure one is present on meeting nights.

William Stahl delivered the formal report of the Bylaws Committee. This was adopted. (A copy is appended to these minutes.) After some discussion, it was agreed that William Stahl would draw up an appropriate form (with a few additional changes) for balloting on by the Section. This "letter-ballot" will appear in the same issue of the *Chesapeake Chemist* as these minutes.

A report was read by the chairman from the Committee on Training and Employment of Disadvantaged Persons. This committee, formed at the behest of the National ACS and chaired by Leon Sigel, has presented to the national office a detailed program. No positive reaction has yet been received by the national office.

There was considerable discussion on how best to implement the desire of the ACS to aid in alleviating the current urban crisis. It was suggested that Brown Murr, Harold Delaney and Dick Kokes study the possibility of establishment of a scholarship by the local Section at community colleges for individuals who ordinarily might not have a college opportunity.

At the present time committees on legislation and meeting location for 1969-1970 have nothing to report.

The committee formed to look into the possibility of subsidy of ACS meetings by local or interested industries has met with some success. It was agreed to defer action on this until the scholarship study group made their report since these same companies might be ap-

(Continued on page 8)

EXECUTIVE COMMITTEE MINUTES

(Continued from page 7)

proached for matching funds in establishment of a scholarship.

Harold Delaney noted that the Washington Section wanted the Maryland Section to supply joint sponsorship for a symposium in place of the usual May meeting.

The meeting was adjourned at 11:05 p.m.

Respectfully submitted,
R. J. Kokes

APPENDIX TO EXECUTIVE COMMITTEE MINUTES

Report of the Committee on Bylaw Revision, Maryland Section, September 23, 1968.

The Committee on Bylaw Revision reported at the Executive Committee meeting on April 15, 1968. Since the national office was preparing a document, soon to be released, supplying guidelines for the amendment of Local Section Bylaws, it was the consensus that no action be taken until this was available. Progress on these guidelines has not been as rapid as expected, but your Committee has been supplied with the copy of the tentative outline of the old guidelines. Since there are no inconsistencies between these tentative guidelines, the model Bylaws proposed by the national organization (September 10, 1967), and the Maryland Section Bylaws, this Committee on Bylaw Revision recommends that we wait no longer, but take action on the following proposals for revision.

Bylaw IV, section 3. Add the words here italicized to the third sentence of the existing Bylaw, so that it reads: An associate member is entitled to all privileges of membership except that of holding an elective position *or serving as a temporary substitute councillor.*

Bylaw VIII. Under the listing of committees, change *Hospitality to House.*

Bylaw IX, Section 5. Add the words here italicized to the last sentence, so that it reads: In the absence of a quorum, which shall be 25% of the members of the Executive Commit-

tee, *exclusive of past chairmen*, called meetings of the Executive Committee shall adjourn to a date.

The revision of Bylaw IV is added for clarity, and to be in agreement with national practice. The revision of Bylaw VIII is proposed because the committee does in fact work on all aspects of the meetings except program and publicity. The revision of Bylaw IX is proposed because the attendance of past chairmen is irregular and never great. Their contributions are valuable, however, so they should continue to be members of the Executive Committee on an ex-officio basis.

This Committee makes no further recommendations at this time. Additional bylaws will be needed if the Section incorporates, or if we wish to form subsections and special groups.

Respectfully submitted,
Lloyd Felton
William Stahl
Belle Talbot, Chairman

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AMENDMENTS TO THE BYLAWS

In accordance with Article XI of the Bylaws, the following proposed amendments, having been approved by the Executive Committee, September 23, 1968, are to be voted on by the membership by means of the attached letter ballot. The amendments may be adopted if 2/3 of the ballots returned to the Secretary, within 30 days of this notice, are in the affirmative.

Bylaw IV, Section 3. Add the words here italicized to the third sentence of the existing Bylaw, so that it reads: An associate member is entitled to all privileges of membership except that of holding an elective position *or serving as a temporary substitute councillor.*

Bylaw V. Change *Vice-Chairman to Chairman-Elect* here, and also where it appears in Bylaws VI and VIII.

Bylaw VIII. Under the listing of committees, change *Hospitality to House.*

Bylaw IX, Section 2. This section specifies that the Annual Meeting at which election of Officers is held is October. Change this to *November.*

Section 5. Add the words here italicized to the last sentence, so that it reads: In the absence of a quorum, which shall be 25% of the members of the Executive Committee, *exclusive of past chairmen,* called meetings of the Executive Committee shall adjourn to a date.

The revision of Bylaw IV is added for clarity, and to be in agreement with national practice. The revision of Bylaw V is to revise the term to conform with more acceptable practice. The revision of Bylaw VIII is proposed because the committee does in fact work on all aspects of the meetings except program and publicity. The revision of Bylaw IX, Section 2, is changed to conform with actual practice during the last several years. The Section 5 change is proposed because the attendance of past chairmen is irregular and never great. Their contributions are valuable, however, so they should continue to be members of the Executive Committee on an ex-officio basis.

DECEMBER MEETING—EARLY DATE

Members should note that the December meeting of the Maryland Section is to be held on the second Wednesday of the month *i.e.* on December 11 instead of the usual third Wednesday. The speaker at 5:30 P.M. will be Dr. Joseph Epstein, Edgewood Arsenal, who will discuss "Charge Effects in Nucleophilic Displacement Reactions," and at 8:30 P.M. Dr. Norman C. Deno of Pennsylvania State University will talk on "The Behavior of Organic Compounds in Strong Acids."

To: Richard J. Kokes
Chemistry Department
The Johns Hopkins University
Baltimore, Md. 21218

I vote as follows on the recommended Bylaws changes:

	Accept	Reject
Bylaw IV	<input type="checkbox"/>	<input type="checkbox"/>
Bylaw V	<input type="checkbox"/>	<input type="checkbox"/>
Bylaw VIII	<input type="checkbox"/>	<input type="checkbox"/>
Bylaw IX, 2	<input type="checkbox"/>	<input type="checkbox"/>
Bylaw IX, 5	<input type="checkbox"/>	<input type="checkbox"/>

SELF-EDUCATIONAL AIDS IN WORKING WITH THE DISADVANTAGED

The Council of the American Chemical Society in the spring of 1968 approved a resolution pertaining to the urban crisis. The Council urged that appropriate officers of the Society take steps to assist the training and the employment of disadvantaged persons. The wording of the resolution appears in several places (1,2). Emphasis is on training and employment. These general solutions to problems of the disadvantaged are not new but getting started in aiding the disadvantaged is sometimes difficult. It was felt worthwhile to compile an annotated listing of references which could serve as self-educational aids and lead to greater productivity in working with the disadvantaged.

Chemical Firms Deepen Involvement in Social Problems (3)

This is a news article on appointment of urban affairs directors as an indication of industry's will to employ and promote minority groups. The chemical industry's recent contributions to the war on poverty are summarized.

"No Room for Negroes in Science?" (4)

This article is composed of questions and answers about Negroes in science. Several recommendations include:

1. Point out to Negro youngsters the opportunities open in science.
2. Organize career days and bring in Negro scientists.
3. Get counselors and science teachers out and around to meet people in science so that they can find out what the situation is and can inform their students.

How Businessmen and the Ghettos Can Get Together (5)

A frank discussion on taking an unproductive individual out of the ghettos and putting him in a productive job is presented to management. Government sponsored programs for the unemployed and training services in the private sector are outlined with respect to sponsor, goals, benefits, funding and scope.

Advice is also given as how to handle the hard core unemployed when he shows up for work.

Teacher Expectations for the Disadvantaged (6)

Experiments are described in which it is suggested that shortcomings in the performance of the disadvantaged student may well be because that is what the teacher expects. It appears that the expectation is communicated in unintended ways with an influence on actual behavior. It is indicated that perhaps more attention in educational research should be paid to the teacher.

The Hard Core Enters the Work Force (7)

This article was written as an aid to safety directors of companies hiring the hard core unemployed. It has a very comprehensive treatment of employee traits and it provides examples of how these workers have been handled successfully with respect to supervision and safety.

A Call for Help (8)

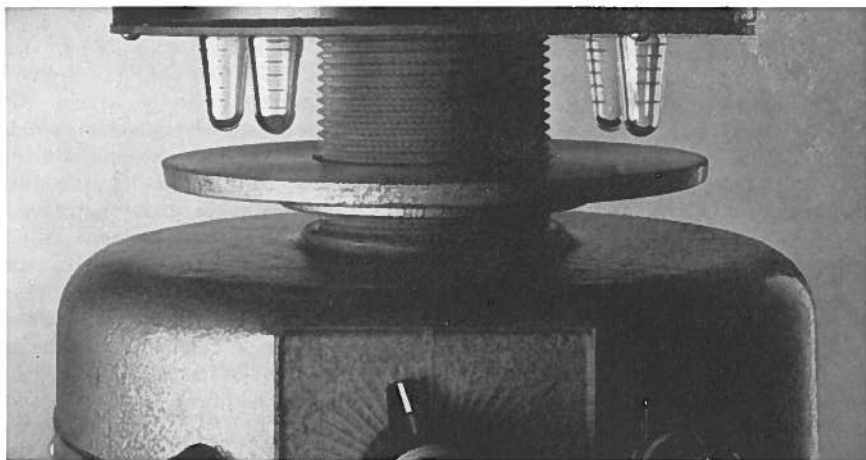
This is a concise but comprehensive editorial which seeks answers to many difficult questions concerning helping the disadvantaged in ways that are peculiarly fitting to a professional organization of chemists. One of the dangers warned against is that armchair solutions thought up by those who have not lived in underprivileged communities are not likely to work.

The Social Power of the Negro (9)

Black power, Negro history, behavior patterns, and the power structure of white society are factors discussed with respect to answering the question why Negroes have not been able to evolve group power in the U.S. The principle reason offered is an unrecognized disunity among Negroes.

This article provides an excellent insight into the background and way of life of the Negro.

(Continued on page 13)



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*Based on concepts presented in the following paper:
Beroza, Morton and Bowman, Malcolm C., Concentrating Solutions to a Small Volume with Minimum Attention, ANALYTICAL CHEMISTRY, Volume 39, Number 10, August 1967.

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WORKING WITH THE DISADVANTAGED

(Continued from page 11)

Will John Garth Make It? (10)

A recent issue of *American Machinist* represents an effort by its editors to contribute to the solution of the crisis in race relations. A forty-eight page article deals in depth on the relationship between manufacturing plants and the hard-core unemployed.

Education (11)

A progress report is presented on the Higher Education Council on Urban Affairs (a coalition of 19 institutions of higher learning in the Baltimore metropolitan area). A critical self-inventory of what members institutions are doing in the field of urban affairs has been completed. The exhaustive survey took nearly a year to complete and includes a number of recommendations.

Literature Cited

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- (2) *The Chesapeake Chemist*, 24, 7 (September 1968).
- (3) *Chem. & Eng. News*, July 1, 1968, p. 20.
- (4) Wilson, J. T., *Scientific Research*, May 13, 1968, p. 26.
- (5) Kalb, W. J., *Iron Age*, May 30, 1968, p. 47.
- (6) Rosenthal, R. and Jacobson, L. F., *Scientific American*, 218, 19 (April 1968).
- (7) *Occupational Hazards*, May 1968, p. 31.
- (8) Editorial, *Chemistry*, 41, 1 (June 1968).
- (9) Comer, J. P., *Scientific American*, 216, 21 (April 1967)
- (10) *American Machinist*, 112, 87 (June 3, 1968). Reprints are available from Reader Service Dept., American Machinist, 330 W. 42 St., New York, N. Y. 10036 at 50¢ each.
- (11) Johnson, R. E., *Baltimore Magazine*, September 1968, p. 52.

Compiled by Dr. E. J. Poziomek, Physical Research Laboratory, Edgewood Arsenal, Md. 21010. The views of the author do not purport to reflect the position of the Department of Defense.

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DR. SAMUEL O. GRIM

Dr. Samuel O. Grim has been associated with the University of Maryland at College Park since 1960, and was recently promoted to Professor after having been Associate Professor since 1965, and Assistant Professor from 1960 to 1961 and from 1962 to 1965. During the academic year 1961-1962 Dr. Grim was a Research Fellow at the Imperial College of Science and Technology in London. Dr. Grim carried out his graduate studies at the Massachusetts Institute of Technology after receiving a B.S. degree from Franklin and Marshall College.

NOVEMBER MEETING OF THE CHEMICAL SOCIETY OF WASHINGTON

The November meeting of the Chemical Society of Washington will be held on November 14 at the Naval Ordnance Laboratory, White Oak, Md. The meeting which starts at 8:30 P.M. will be a panel discussion on *The Role of Chemistry in a World of Burgeoning Population*. The moderator will be John McHale, Directory, World Sources Inventory, Southern Illinois University, and the panelists will be Dr. John Kincaid, Assistant Secretary for Science and Technology, U.S. Department of Commerce, and Dr. Samuel A. Goldblith, Massachusetts Institute of Technology. Mr. McHale will also present a talk at 5:30 P.M.

PHOSPHORUS NMR STUDIES OF COORDINATION COMPOUNDS

The utility of phosphorus-31 nuclear magnetic resonance in the study of coordination compounds will be illustrated. Examples to be discussed will include tertiary phosphine derivatives of palladium(II), platinum(II), rhodium(III), iridium(III), and mercury(II); and also tertiary phosphine and organophosphite derivatives of chromium, molybdenum, and tungsten carbonyls.

Emphasis will be placed on phosphorus-heavy metal coupling constants and the relationship of the magnitude of the coupling constants and chemical shifts to the stereochemistry of the metal complexes and to current bonding theory. Some examples of phosphorus-phosphorus coupling in "mixed" ligand compounds (e.g., $(Ph_3P)(Bu_3P)Mo(CO)_4$) will also be presented.

MINNEAPOLIS NATIONAL MEETING SYMPOSIUM

Recent Development in Fuel Analysis Techniques is the title of a Symposium which will be held at the 1969 Spring Meeting of the American Chemical Society in Minneapolis. The Symposium will cover recent developments in analytical techniques for fuel and related materials. Those interested in the Symposium may contact the Symposium Chairman, Dr. S. H. Hastings, Esso Research and Engineering Co., P. O. Box 4255, Baytown, Texas 77520.

..... Tear-Out Dinner Reservation Form

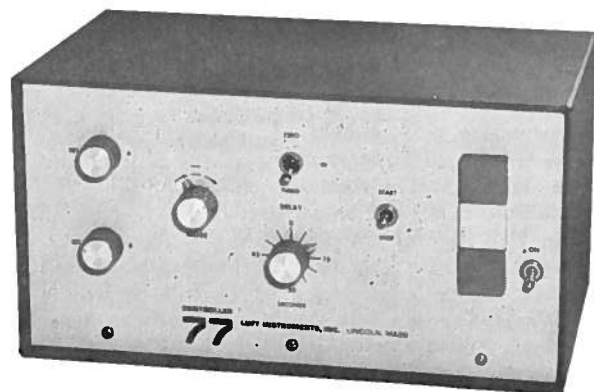
There is enclosed \$_____ (\$4.00 per person)* for cocktails and dinner at Eudowood Caterers, Eudowood Plaza, on Wednesday, November 20, 1968 for the following persons.**

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*Please make checks payable to Maryland Section, ACS and mail together with reservation form to Mr. Allen Bednarczyk, McCormick and Co., Inc., 204 Wight Ave., Cockeysville, Md. 21030, or phone 666-3155, 666-3156.

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Dr. George L. Braude (left) being presented with 1968 Maryland Chemist Award by Section Chairman Timothy F. Parr (right). In the center is George Steinberg, Chairman of the Awards Committee.

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DR. SIDNEY SIGGIA

Sidney Siggia was born in New York City in 1920. He attended Queens College in New York, receiving a B.S. degree in 1942. He was then employed as research fellow at the Polytechnic Institute of Brooklyn, where he received a M.S. degree in 1943 and a Ph.D. in 1944.

Dr. Siggia had his first contact with analytical research while at Queens College, where he worked with Dr. A. A. Benedetti-Pichler. At Brooklyn Polytechnic he was associated with Dr. H. Mark, and his work was on kinetic studies in polymer chemistry and analysis of polymeric materials.

From Brooklyn Polytechnic, Dr. Siggia went to General Aniline and Film's Central Research Laboratory in Easton, Pennsylvania, where he was employed as a research analyst. He became manager of GAF's Analytical Department in 1955. In 1958 he joined Olin Mathieson's New Haven Research Laboratory to set up and direct their Central Analytical Services, Research Group. In 1966 he joined the University of Massachusetts as Professor of Chemistry.

Dr. Siggia specializes in organic analysis with emphasis on the handling of mixtures of organic compounds. He has published over seventy papers in this field and has written four books, *Quantitative Organic Analysis via Functional Groups* (now in its third edition), *An Introduction to Modern Organic Analysis*, *Continuous Analysis of Chemical Process Systems*, and *Survey of Analytical Chemistry*. Dr. Siggia also holds four patents on the production of chemical materials, and has contributed sections to seven textbooks.

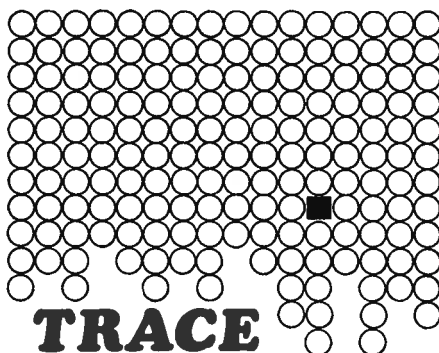
Dr. Siggia has been advisory board member to *Analytical Chemistry*, chairman of the ASTM committee on Functional Group Analysis, chairman of the Gordon Conference on Analytical Chemistry, and president of the Olin Chapter, Research Society of America. He is currently Chairman-elect of the Analytical Chemistry Division of American Chemical Society, and is also on the Advisory Panel to the National Bureau of Standards.

FADS AND FASHIONS IN CHEMICAL ANALYSIS

There are fads and fashions in chemical analysis as there are in all areas of human activity. A survey of these fads will be made with a commentary on why the trends took the direction they did, which fads persisted, and which died. The talk culminates in our modern technology and what are considered the current ways of doing things; rightly or wrongly.

The talk will be built around the types of problems that have to be solved by analytical chemists. The fads and fashions are involved with the manner of solution of these problems. It is hoped that the audience will be left with a view of Analytical Chemistry in a better perspective.

NOTE EARLY MEETING
DATE IN DECEMBER



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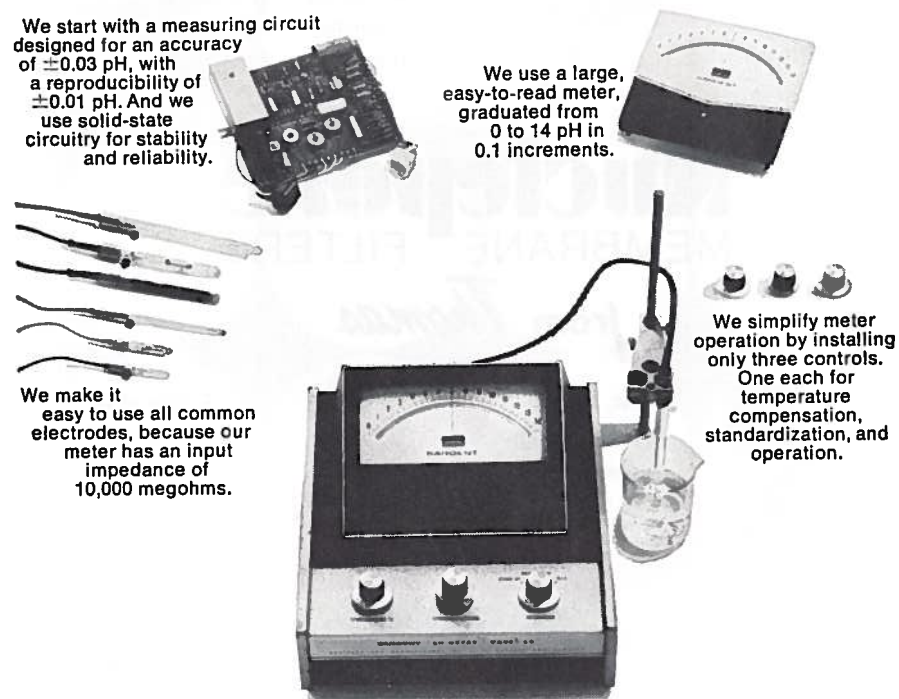
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