



THE

# CHESAPEAKE CHEMIST

MARYLAND SECTION  
AMERICAN CHEMICAL SOCIETY

VOL. XXVII

NOVEMBER, 1971

NUMBER 8

## CHEMICAL EDUCATION NIGHT

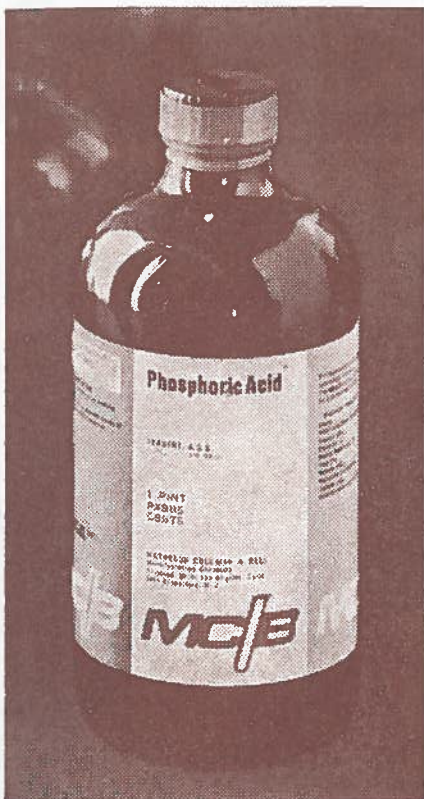
5:30 p.m.

**Dr. Theodore L. Reid**

8:00 p.m.

**Prof. Marjorie Gardner**

NOVEMBER 17, 1971



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# THE CHESAPEAKE CHEMIST

VOL. XXVII

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### IN THIS ISSUE

November Meeting.....5

T.L. Reid, Précis of Talk.6

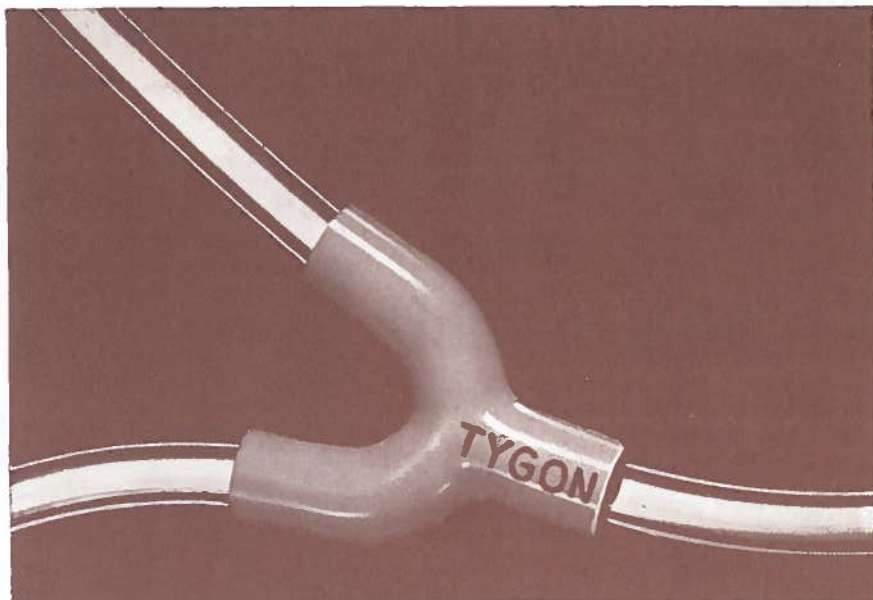
M.Gardner, Précis of Talk.7

Nomination of Officers....8

Membership Changes.....10

7th MARM.....11

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## NOVEMBER MEETING

### CHEMICAL EDUCATION NIGHT

**DATE:**

WEDNESDAY, NOVEMBER 17, 1971

**PLACE:**

Eudowood Gardens Lecture Room, Eudowood Plaza, Joppa Road near Goucher Boulevard.

**SPEAKERS AND TOPICS:**

5:30 P.M. Dr. T.L. Reid, Nat. Sci. Foundation. "New Directions for the Support of Science Education at the Nat. Sci. Foundation."

8:30 P.M. Prof. M. Gardner, Univ. of Md., "Interdisciplinary Approaches to Chemistry."

**SOCIAL HOUR:**

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

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**ATTENTION**

**Election of Officers**

Prior to 8:30 Talk

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**PLAN TO ATTEND**

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**COCKTAILS AND DINNER:**

Eudowood Gardens Dining Room. Price is \$5.25 per person for cocktails (6:30-7:15, unlimited quantity) and hot buffet dinner (7:15). Students and their spouses may attend the dinner for \$3.00. Reservations are necessary for the dinner, and should be made with Mr. Allen Bednarczyk, McCormick and Co., Inc., 204 Wight Avenue, Cockeysville, Md. 21030, phone 666-3155, by Friday preceeding meeting.

It is not necessary to be a member of the American Chemical Society to attend the dinner or the talks, and the talks may be attended without attending the dinner.



PROF. MARJORIE GARDNER

Theodore L. Reid was born in Portland, Oregon on March 30, 1925 and spent most of his childhood years in Vermilion, Alberta, Canada. In 1946, he received his B.Sc. in "Honors Chemistry" from the University of Alberta. He received his Ph.D. in "Natural Products" Organic Chemistry at Iowa State University in 1954 while working under Dr. Ernest Wenkert. In 1955, Dr. Reid began his professional career as Professor of Chemistry at the University of South Dakota where he taught Freshman Chemistry and Analytical Chemistry. During his summer employment in the State Chemistry Laboratory, Dr. Reid was responsible for pesticide analysis and the direction of the analytical phase of an extensive and long term environmental survey of regional radiation in preparation for the construction of a thermonuclear power plant in Sioux Falls, South Dakota. In 1965, Dr. Reid spent a one year sabbatical at Iowa State University studying mathematics and spectroscopy.

In the Spring of 1967, Dr. Reid spent two months as a consultant in India to the Joint United States India Program in Science Education. Dr. Reid joined the National Science Foundation Staff in the Fall of 1967 and from then to present has been Associate Program Director, Academic Year Study Program. He has devoted considerable effort to the development of two new programs, Comprehensive Grants in Teacher Education and the Systems Approach to Science Education.

IF YOU CHANGE YOUR ADDRESS . . . Please do not notify the Editor of the *Chesapeake Chemist*, but send your new and old addresses to: The American Chemical Society, 1155 Sixteenth Street, N. W., Washington, D. C. 20036. The Maryland Section will then be notified.

"SOME NEW DIRECTIONS IN SCIENCE  
EDUCATION AT THE  
NATIONAL SCIENCE FOUNDATION"

A brief history of the Foundation's activities in science education including an analysis of the current situation will be given. A brief discussion of current science education programs and the opportunity they present for college and high school personnel will be given.

Dr. Reid's remarks will focus on two new programs, Comprehensive Grants in Teacher Education and the Systems Approach to Science Education. These two notions originated in the Academic Year Studies Program and are an attempt to deal more effectively with complex problems in science education. They both represent conscious attempts at "Putting It All Together" since they are in a sense built on successes of the past. In addition, however, and through a conceptual framework currently being developed for Divisional Activities, the process of rendering lasting changes in science education and even in the operation of the Foundation will be explored.

**COPY DEADLINE**

Copy for the *Chesapeake Chemist* should be forwarded to the Editor not later than the fifth of the month preceding publication.

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M A R M

FEBRUARY 14-17, 1972

PHILADELPHIA

PROF. MARJORIE GARDNER

Marjorie H. Gardner was born on April 25, 1923 in Logan, Utah. In 1946, she received her B.S. in Political Science-Chemistry from Utah State University. During the years 1947-1956, Dr. Gardner taught high school courses in science and journalism in Utah, Nevada and Ohio. From 1957 to 1958, she was a member of the National Science Foundation Academic Year Institute at Ohio State University. In 1958, she received her M.A. and in 1960 her Ph.D. from Ohio State University in Science Education-Chemistry. From 1961 to 1964, Dr. Gardner served as Director of the Vistas of Science Program of the National Science Teachers Association. During the years 1962-1964, she also served as Assistant Executive Secretary of the same organization. In 1964, Dr. Gardner joined the Chemistry and Secondary Education faculties of the University of Maryland, where she now holds the position of Associate Professor of Science Education.

Dr. Gardner is the author of numerous publications in the field of science teaching and science curriculum. She has also served as Editorial Director for a number of the books in the Vistas of Science series.

Among her present activities, Dr. Gardner is serving as Chairman of the Curriculum Committee of the American Chemical Society's Division of Chemical Education, Chairman of the USOE Ad Hoc Committee for Natural Sciences, Chairman of the Sciences Materials Review Committee of the National Science Teachers Association, plus holding membership on several other local and national science education related committees.

Dr. Gardner's professional society affiliations include the National

Science Teachers Association, National Education Association, AAAS, ACS, National Association for Research for Science Teaching, Association for Education of Teachers of Science, National Association of Geology Teachers, AIC, and several honorary societies.

"INTERDISCIPLINARY APPROACHES  
TO CHEMISTRY"

The study of chemistry can be more fun, more relevant, more interdisciplinary, more investigative, with more options open for students and teachers. This session will introduce eight interchangeable, instructional modules designed to popularize the study of chemistry in high school and at the introductory college level. Modules on introductory chemistry, inorganic chemistry, organic chemistry, biochemistry, nuclear chemistry, geochemistry, environmental and physical chemistry can be used in conjunction with existing courses or be arranged into new one-semester or full-year courses.

DECEMBER MEETING

INORGANIC  
NIGHT

DECEMBER 15, 1971

**ORGANIC MICROANALYSES**

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Last Attend An  
ACS Meeting?

## NOMINATIONS FOR SECTION OFFICERS

Prior to the talk at 8:30 P.M. the election will be held for officers, councilors, and members-at-large of the executive committee to serve the Maryland Section in 1972. The Nominating Committee, consisting of Dr. Eli Freedman, Dr. Melvin Miller, Dr. Robert Parr, Dr. Joseph Cogliano, and Mr. Allen Bednarczyk, Chairman, has presented the following slate of candidates. Additional nominations may be received from the floor with the understanding that any candidate must have given consent to such nomination.

Chairman-elect.....Yale H. Caplan  
Secretary.....Ernest F. Silversmith  
Treasurer.....Leon Weber  
Councilor.....Timothy Parr  
Alternate  
Councilor.....Brown L. Murr

Members-at-large:  
Fred Gornick  
David Roswell  
Ronald J. Kassel  
Peter Y. Johnson  
Edward J. Poziomek

### YALE H. CAPLAN

Yale H. Caplan was born in Baltimore in 1941. He received his B.S. in Pharmacy from the University of Maryland in 1963. In 1968, he received his Ph.D. in Medicinal Chemistry from the same institution. During the years 1965-1968, he was a Predoctoral Fellow of the National Institutes of Health at the University of Maryland School of Pharmacy. From 1968 to 1970, he was a research associate and supervisor in the Surgical Research Division of Sinai Hospital. His work there was in experimental toxicology and cancer chemotherapy. In 1969, he assumed the position of Assistant Toxicologist with the State of Maryland's Office of the Chief Medical Examiner. In the same year, he also began a one year stay at the Johns Hopkins University School of Medicine as Assistant in Surgery (Chemistry). Besides his duties at the Medical Examiner's Office, Dr. Caplan is also serving as Research Consultant for Sinai Hospital's Surgical Research Division and Toxicologist for the Central Laboratories of the Associated Maryland Pathologists Limited.

### ERNEST F. SILVERSMITH

Dr. Ernest Silversmith was born in Nuremberg, Germany. He received his early education in Takoma, Washington. He received his undergraduate training at Harvard University, receiving his A.B. in Chemistry in 1952. In 1955, Dr. Silversmith re-

ceived his Ph.D. in Organic Chemistry from the University of Wisconsin after which he spent one year of Post-Doctoral research at the California Institute of Technology under Professor John D. Roberts. From 1956-1958, he was an Assistant Professor of Chemistry at Mount Holyoke College. In 1958, Dr. Silversmith became a research chemist with E. I. duPont de Nemours Company. In 1967, he left duPont to assume his present position as Professor of Chemistry and Chairman of the Chemistry Department of Morgan State College.

### LEON WEBER

Leon Weber was born in Detroit, Michigan, and received his early chemical education there, receiving his B.S. from Wayne State University in 1952 and his M.S. in analytical chemistry from the same institution in 1954. In 1954, he moved to Houston, Texas, to work for the Shell Development Corporation. From 1956 to 1967, he worked in the Pittsburgh area for Westinghouse Atomic Power and Gulf Research and Development, during which time he received his M.S. and Ph.D. in physical chemistry from Carnegie Tech. In 1967, he moved to the Baltimore area, assuming the position of Scientist at the Glidden Company. His work involves the surface and colloidal chemistry of pigments. A member of AAAS, Baltimore Society of Paint Technology and Sigma Xi.

## THE ACS — AMERICA'S \$1,000,000,000 SOCIETY

**N**O PORTABLE PENSIONS, no unions, just a simple pension trust fund created by and for ACS members only, with a contribution from each employer — and the ACS would be pure "Green Power," a billion dollar society.

Let's face it, portable pensions are years and years away! Think of the paperwork and record keeping that perpetual portability presents to an employer. Why should any employer (with the usual employee turnover of 15-20%) tie up the funds and personnel necessary to keep records on long-gone people who number far more than his current working staff? Furthermore, any scientist changing jobs, say every three to five years, would only participate in that part of a pension plan that has virtually no cash value. So what would he actually have accumulated, beyond his own donations, at the end of twenty years?

But there is a real way to pension security! It is the answer to scoffers who ask, "What is the ACS doing for me?" Here is how it would work!

The ACS has over 100,000 members. Every member contributes \$500.00 per year. Every employer contributes \$500.00 per year (and believe it, this is a minor employer expense compared to the record-keeping costs of perpetual pensions). What have we? 100,000 members paying in, along with each employer, a total of \$1,000.00 per year, or \$100,000,000 in just one year. In ten years, one billion dollars.

\$1,000,000,000! This seems like a wild dream; it need not be.

The rationale is simple. Certainly every member should be able to save \$500.00 a year (\$41.66 per month). Putting the money into an ACS pension trust would be like putting the money into any of a great variety of mutual funds. Furthermore, it is my firm conviction that a \$500.00 assessment from an employer is a truly cheap way for him to get off "the hook" of a perpetual portable pension plan.

The organization of such a plan is no different from thousands of similarly planned funds set up for unions (forgive the word) and other group-type organizations. Banks or investment banking organizations would cheerfully manage

a fund having an annual income of \$100,000,000. They would organize the fund, do all the actuarial studies, prepare the paperwork, maintain the book-keeping, and provide reasonably intelligent investment guidance. A fund of this size should expect at least an annual dividend of 4% and a capital security growth of at least 3%, thus providing at least a compounded growth of 7% per year. A billion dollar fund would be easily attained in less than 10 years. You can calculate the point in time it reaches \$2,000,000,000.

Now what would this fund do for us? Outside of the obvious "mutual fund" value, it would serve several extremely useful purposes. Layoffs would not leave a financial vacuum. The fund would provide loans at a very nominal interest rate, say 1%, to those who find severance payouts inadequate. The fund would provide loans for education of members' families. The fund would be the cornerstone of a very adequate retirement income.

This is real "Green Power". There is no question of feasibility. The only question resides with you, the ACS member. Do you want to do it yourself, or do you want to continue to ask for handouts — a portable pension plan that is certain to be bucked by corporate structures as wholly unpalatable.

This billion dollar fund (in ten years) need not replace pension plans now current in corporate organizations. It can be in addition to plans in which you are now involved. An annual corporate contribution of \$500.00 (a trivial \$10.00 per week) per ACS member should be their recognition to the ACS for what it has done for science over the past 75 years and what it is continuing to do.

The potential of such a fund is staggering! Think of what just a small portion of the income could provide in services or aid to members. Think of what some of the income could do as grants *in aid*.

Think about it. Many will say the concept is naive or oversimplified — indeed, it may well be — but *think about it!* **THINK BIG!**

L.L.L.  
An Editorial reprinted from the  
Chemical Bulletin.

## MEMBERSHIP CHANGES

The following people have recently joined the Maryland Section of the American Chemical Society. The local Section welcomes each one and invites each member to attend Local Section meetings and to participate in Local Section Activities.

Alan M. Baratta, Columbia Pike, Ellicott City, Md.  
 John Vincent Berrier, Highland Drive, Glen Burnie, Md.  
 Stephen Billets, Jr., JHU, Baltimore, Md.  
 David B. Blanchard, Greenlow Road, Baltimore, Md.  
 Angelo T. Bonduris, Galetree Court, Cockeysville, Md.  
 Stanley J. Burdick, Monrovia, Md.  
 David Wayne Cochran, Moravia Blvd., Baltimore, Md.  
 Alan H. Confer, Padonia Rd., Lutherville, Md.  
 Thomas Willard Cook, U. of Md., Baltimore, Md.  
 Dr. Lee Richard Debow, N. Charles St. Baltimore, Md.  
 Marshall Dick, Naval Ship Center, Annapolis, Md.  
 James Alan Duncan, Morgan St. Coll., Baltimore, Md.  
 Dr. Thomas E. Ferington, Harpers Farm Rd., Columbia, Md.  
 Mrs. Suellen Ferraris, King Place, Frederick, Md.  
 Cyrelle Kay Gerson, Stokes St., Havre De Grace, Md.  
 Walter E. Guild, Jr., Hyls Brook Rd., Columbia, Md.  
 Edward Carl Hauer, East Street, Frederick, Md.  
 Mrs. Frances Cope Hummel, Basket Ring Road, Columbia, Md.  
 Jeffrey Wayne Jacobs, Lawnside Drive, Lutherville, Md.  
 Robert S. Johnson, Mystic Court, Columbia, Md.  
 Dr. Lou Sing Kan, N. Wolfe Street, Baltimore, Md.  
 Allen Edward Kempainen, Woodland Drive, Severna Park, Md.  
 Miss Carole LeVanda, St. Paul Street Baltimore, Md.  
 Dr. Eldon Edward Leutzinger, JHU, Baltimore, Md.  
 Dr. Marshall Woford Logue, U. of Md. Baltimore, Md.

Gary L. Loomis, N. Chapelgate Lane, Baltimore, Md.  
 John Nelson Murray, Lawnside Drive, Lutherville, Md.  
 Joseph Herbert O'Toole, Windemere Ave., Baltimore, Md.  
 Dr. Charles R. Phillips, Aberdeen Proving Ground, Edgewood Arsenal  
 W. Joseph Romanski, Mount Street, Rising Sun, Md.  
 Sarkis S. Saryan, McElderry, Baltimore, Md.  
 George M. Staples III, St. Dunstons Road, Baltimore, Md.  
 David Robert Tallant, Reider Court, Edgewood, Md.  
 William Edward Weston, Warwick Drive, Aberdeen, Md.  
 Dr. Alfred L. Yergey, III, Morningbird Land, Columbia, Md.  
 Robert Z. West, Chetwood Circle, Lutherville Timonium, Md.  
 Kenneth Michael Williamson, Georgia Avenue, Baltimore, Md.

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## 7th MARM CALL FOR PAPERS!

The 7th Middle Atlantic Regional Meeting (MARM) will be held next year at the Marriott Hotel, Philadelphia, Pennsylvania from February 14-17, 1972. The central theme of the meeting is "WORLD FOOD".

The success of this meeting will depend to a great extent on the quality and quantity of the papers to be presented. Let's make the Maryland Section well represented. Send inquiries to the following Chairmen:

### General Meeting Chairman

Dr. Eugene Rosenbaum  
 Drexel University  
 Philadelphia, Penna. 19104  
 (215) 387-2400

### Program Chairman

Dr. John F. Gall  
 Philadelphia College of  
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Petroleum Chemistry	Physical Chemistry	Polymer Chemistry
Professional Relations	Rubber Chemistry	Undergraduate Research
Technicians	World Food	Solid State Chemistry

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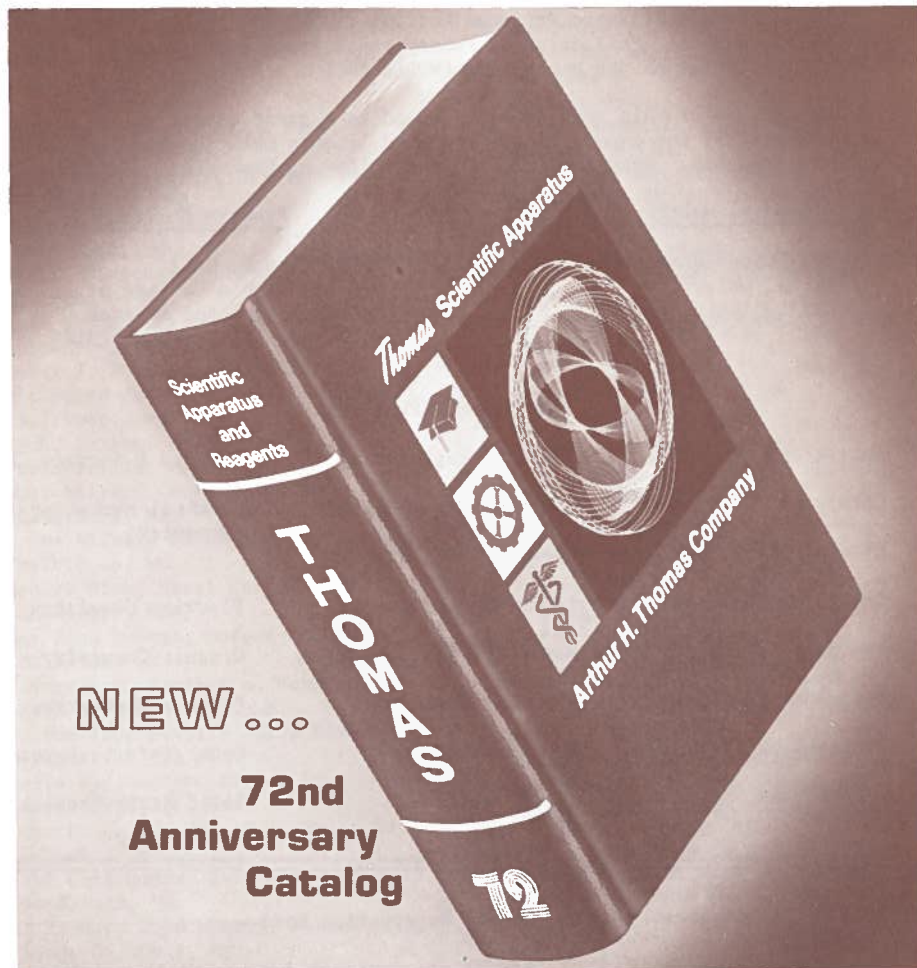
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\*\*Return by Friday preceeding next meeting.

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