



THE CHESAPEAKE CHEMIST

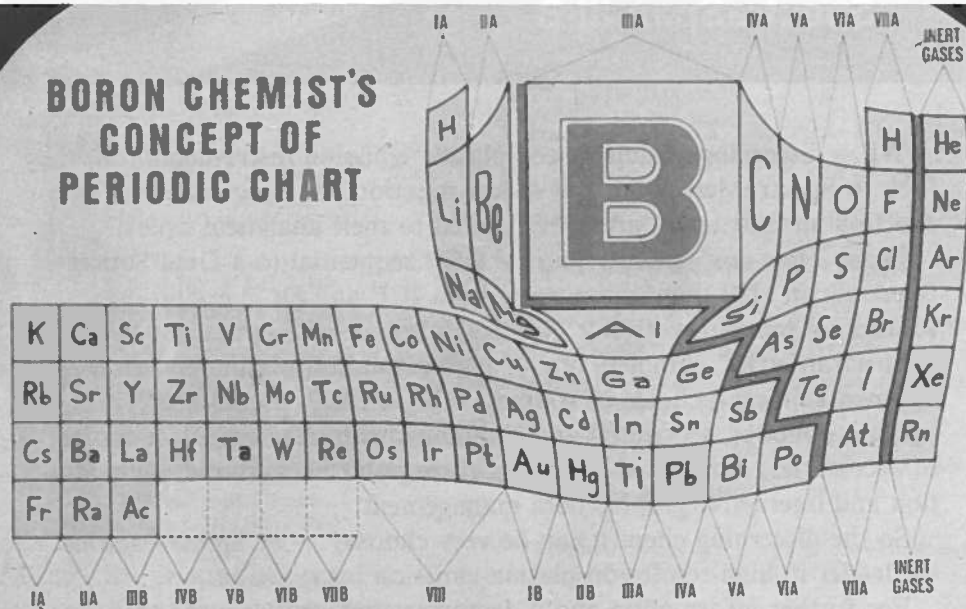
MARYLAND SECTION
AMERICAN CHEMICAL SOCIETY

VOL. XXXVII

SEPTEMBER, 1981

NUMBER 6

BORON CHEMIST'S CONCEPT OF PERIODIC CHART



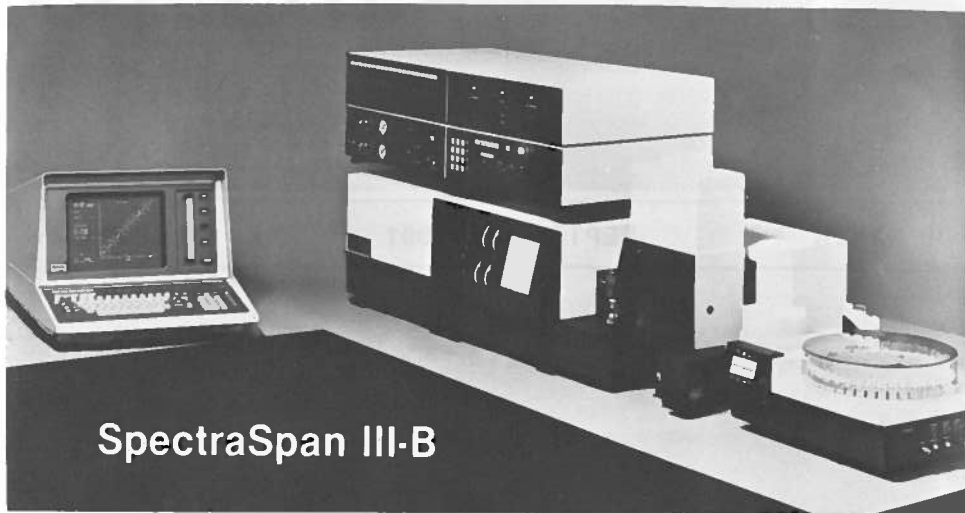
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The Johns Hopkins University
338-7417

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The College of Notre Dame of MD
435-0100

Program.....Elwin C. Penski

Archives.....Ernest Silversmith

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Remsen Award.....Dean Robinson
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338-7430

Finance.....Alvin Bober
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Charles Rowell....U. S. Naval Academy
267-3302

Timothy Parr.....Westinghouse
747-4195

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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 Raymond C. Petersen, 9329 Joey Drive, Ellicott City, Md. 21043. Send advertising copy and inquiries to Mary Salb, McCormick and Co., Inc., 204 Wight Avenue, Hunt Valley, Md. 21031. The Maryland Section is not responsible for opinions expressed herein. Editorials express the opinions only of their authors. The Editor is responsible for all unsigned material.

DISTINGUISHED SERVICE AWARD TO TIM PARR

The Executive Committee of the Maryland Section has chosen F. Timothy Parr as the recipient of the Section's Distinguished Service Award for 1981.

This award was established to recognize outstanding service to the Section and it was made for the first time last year when Don Jones was honored.

Tim Parr, a graduate of Loyola College and Fordham University, has been an ACS member since 1947. He first became active in the Maryland Section in 1954 when he was elected a Member-at-large of the Executive Committee. In 1956 he became an Assistant Editor of *The Chesapeake Chemist*. In this capacity he wrote a series of articles describing the chemical industry in the Chesapeake Bay area. He served as Editor for two years beginning in 1961.

Tim was next elected an Alternate Councilor for two years and then Section Secretary for two years. In 1967 he became Chairman-elect and in 1968 he was Maryland Section Chairman, following which he served as a Councilor for six years.

He was a member of the organizational committee which formed the first Middle Atlantic Regional Meeting in 1966. He was the Maryland Section's first delegate to MARM and he served as Treasurer of the MARM Steering Committee for three years beginning in 1970.

He served as Vice Chairman of the 6th MARM, held in Baltimore, and in 1978, when the Maryland Section again hosted the MARM, Tim served as Budget and Finance Chairman.

He functioned as a MARC Councilor periodically over the past fifteen years, and on the national level he served three years as a member of the Publications Committee.

Tim is currently serving as Maryland Section representative to MARM through 1981 and national Councilor through 1982.

NOMINATING COMMITTEE REPORT

The Nominating Committee of the Maryland Section (M. Miller, Chairman, R. Caret, M. Eiss, H. Freimuth, J. Leslie) presents the following slate for 1982 officers, councilors and members-at-large of the Section:

Chairman-elect	Charles F. Rowell
Secretary	Frances Hummel
Treasurer	Nolan Phillips
Councilors (1982-84)	Donald Jones David Roswell
Alternate Councilors	Alvin Bober Timothy J. McNeese
Members-at-large	P. Gabbert Cheryl Manger John Roach Joseph Topping William Zeiger

Merle I. Eiss, the 1981 Chairman-elect, automatically becomes Chairman in 1982.

FALL INSTITUTE IN SCIENCE AND TECHNOLOGY

This year the State University of New York at New Paltz will again sponsor a Fall Institute in Science and Technology.

Courses will include "Fundamentals of Adhesion: Theory, Practice and Applications" (October 7-9), "Scanning Electron Microscopy and X-Ray Microanalysis: Theory and Practice in Materials Science" (October 19-23), and "Scanning Electron Microscopy and X-Ray Microanalysis: Theory and Practice in Biology and Medicine" (October 26-29).

Further information is available from Dr. Angelo V. Patsis, Director, Institute in Science and Technology, State University of New York, CSB 209, New Paltz, New York 12561; telephone (914) 257-2175.

MIDDLE ATLANTIC REGIONAL MEETING

April 21-23, 1982
John M. Clayton Hall
University of Delaware
Newark, Delaware 19711

GENERAL CHAIRMAN	H.W. Blunt, Hercules
PROGRAM CHAIRMAN	W.K. Moberg, DuPont
SYMPOSIUM CHAIRMAN	D.F. Eaton, DuPont
EXPOSITIONS AND ARRANGEMENTS	H. Monck, Hercules V. Ahrens, University of Delaware

GENERAL SESSIONS AND SYMPOSIA

GENERAL PAPERS are solicited for General Sessions. ABSTRACTS must be submitted on ACS abstract forms, and must be received by December 15, 1981. Abstracts for all papers should be submitted to the Program Chairman: Dr. William Moberg, E.I. duPont de Nemours & Co., Experimental Station E324/304, Wilmington, DE19898. Requests for abstract forms should be sent to Shirley Blackwell, Meetings and Expositions Dept., American Chemical Society, 1155 Sixteenth Street, N.W., Washington, D.C. 20036. Slides will be limited to 2" x 2" size.

ANALYTICAL CHEMISTRY	INORGANIC CHEMISTRY
APPLIED PHOTOCHEMISTRY	MEDICINAL CHEMISTRY
BIOCHEMISTRY	ORGANIC CHEMISTRY
CHEMICAL DOCUMENTATION	PHYSICAL CHEMISTRY
CHEMICAL EDUCATION	POLYMER CHEMISTRY
COMPUTERS IN CHEMISTRY	SAFETY AND INDUSTRIAL HYGIENE
ENVIRONMENTAL CHEMISTRY	TECHNICIANS AFFILIATES

SPECIAL SYMPOSIA

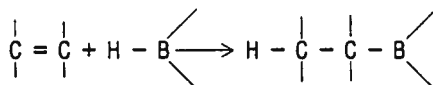
Chem Vets - Pre-Retirement Planning
Delaware ACS Innovation Task Force - Improving Technological Innovation

For Exposition Information and Space Reservations, contact: Shirley Blackwell, Meetings and Expositions Dept., American Chemical Society, 1155 Sixteenth Street, N.W., Washington, D.C. 20036, (202) 872-4402, or Harry Monck, Hercules Research Center, Hercules Inc., Wilmington, DE 19899

Professor Herbert C. Brown was born in London, England on May 22, 1912. He came to this country at an early age and received his education in Chicago, receiving the B.S. degree in 1936 and the Ph.D. degree in 1938, both from the University of Chicago. Following a year with Professor M. S. Kharasch as postdoctorate fellow, he was appointed to the staff of the University of Chicago with the rank of Instructor. In 1943 he went to Wayne University (Assistant Professor, 1943-1946; Associate Professor, 1946-1947) and in 1947 he transferred to Purdue University. He presently holds the title of Wetherill Research Professor Emeritus.

At a time when steric hindrance was considered to be "the last refuge of puzzled organic chemists", his studies of molecular addition compounds contributed to the reacceptance of steric effects as a major factor in chemical behavior. His studies on aromatic substitution led to a quantitative theory based on the new Brown σ^+ constants. His studies on applications of the borohydrides and diborane to organic synthesis have had revolutionary impact on synthetic organic chemistry. Finally, the new borohydride preparation of active hydrogenation catalysts was discovered in collaboration with his son, Charles A. Brown, and this in turn led to the new simplified Brown procedure for laboratory-scale hydrogenations.

Professor Brown is perhaps best known for his explorations of the role of boron in organic chemistry. He discovered that the simplest compound of boron and hydrogen, diborane, adds with remarkable ease to unsaturated organic molecules to give organoboranes.



(He likes to point out that his parents exhibited remarkable foresight in giving him the initials, H.C.B.)

With organoboranes now readily available for the first time, he undertook to explore their chemistry. This chemistry is proving unusually rich. It is evident that Professor Herbert C. Brown has discovered a new continent in chemistry, a continent that will take many years of enthusiastic research effort to explore in detail and to exploit for the good of mankind.

Professor Brown's awards and honors are numerous. He was the Harrison Howe Lecturer in 1953, the Centenary Lecturer of The Chemical Society (London) in 1955, and the Baker Lecturer in 1969. He was elected to the National Academy of Sciences in 1957, the American Academy of Arts and Sciences in 1966, and received an honorary Doctorate of Science degree from the University of Chicago in 1968, and was elected Honorary Fellow of The Chemical Society and Foreign Member of the Indian National Academy of Sciences in 1978. Finally, he is the recipient of the Nichols Medal for 1959, the ACS Award for Creative Research in Synthetic Organic Chemistry for 1960, the Linus Pauling Medal for 1968, the National Medal of Science for 1969, the Roger Adams Medal for 1971, the Charles Frederick Chandler Medal for 1973, the Madison Marshall Award for 1975, and the CCNY Scientific Achievement Award Medal for 1976, the Allied Award for 1978, the Ingold Memorial Lecturer and Medal for 1978, the Elliott Cresson Medal for 1978, the Nobel Prize for 1979, and the Priestley Medal for 1981.

SEPTEMBER MEETING

DATE:

Wednesday, September 16, 1981

PLACE:

University Union
Towson State University

SPEAKER:

Herbert C. Brown
Purdue University

SUBJECT:

"From Little Acorns to Tall
Oaks - From Boranes Through
Organoboranes"

RECEPTION AND DINNER:

Towson State University
University UnionReception: 6:30 pm
Dinner: 7:00 pm
Lecture: 8:30 pmDinner \$10.00 per person, except
retired chemists and students may
attend the dinner for \$8.00;
choice of fish or beef.

DR. HERBERT C. BROWN

Dinner reservations are necessary and
should be made by mailing checks toMerle Eiss
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Hunt Valley, MD 21031by September 9. Checks should be
payable to Maryland Section of ACS.
Late reservations may be made by
calling

667-7485

before September 11. Please specify
fish or beef.FROM LITTLE ACORNS TO TALL OAKS -
FROM BORANES THROUGH ORGANOBORANES

Forty-four years ago diborane was a chemical rarity, available only in two laboratories in the world. The requirements of research during World War II led to the discovery of practical synthetic methods of diborane and to the discovery of sodium borohydride. These turned out to be excellent reducing agents in organic chemistry. Exploration of these reducing characteristics led to the discovery of hydroboration. Hydroboration made organoboranes readily available. These organoboranes have proven to be the most versatile intermediates now available for organic synthesis. Thus this research program has taken boranes from a material available only in trace quantities to a reagent widely used in organic synthesis, greatly assisting the chemist in overcoming synthetic difficulties.

Dr. Brown received the Maryland Section's Remsen Award in 1961, the Nobel Prize in 1979 and the Priestly Medal in 1981.

EXECUTIVE COMMITTEE MINUTES

The Executive Committee of the Maryland Section, American Chemical Society, was convened by the Chairman, Elwin Penski, on Wednesday, May 6, 1981, at 7:10 P. M. in the Knott Science Center, Notre Dame College. The following members were present: R. Caret, M. Eiss, D. Hoster, F. Hummel, D. Jones, J. Kaufman, M. Kirk, M. Miller, E. Penski, R. Petersen, D. Roswell, C. Rowell, M. Salb, E. Silversmith and Sister Mary Vincent. The minutes of the March meeting were read and approved after the following correction was made: the retirement seminar will be sponsored by the Maryland Section, and will be set up by Alvin Bober.

The Chairman made the following announcements:

An ACS Student Affiliate Charter was presented to Hood College on 29 April 1981 and a similar charter will be presented to Coppin State on 8 May 1981.

A letter from the Maryland Academy of Sciences was read. This letter requests suggestions for ways that the Maryland Academy of Sciences could better serve the scientists and scientific societies of this area. This will be discussed under new business.

The amendment to the Bylaws regarding selection of awardees was approved unanimously. The votes were counted by a committee consisting of James W. King, Harry A. Brown and Ronald J. Kassel. A letter from Joyce Kaufman, Chairperson of the Awards Committee was read. In summary, we need more nominees, but the nominations must be written to carry any weight.

National has suggested that sections have a Long Range Planning Committee. Mr. Penski suggested that the Executive Committee is the best vehicle for long range planning. This will be discussed under new business.

Dr. Koji Nakanishi will receive the Remsen Award on June 11, 1981, at the Johns Hopkins University.

We have three vacancies now. Linda Sweeting has resigned as Associate Editor of *The Chesapeake Chemist*. Also we need volunteers to serve as Congressional Science Councilor to Mikulski and Dyson. Volunteers or suggested draftees would be appreciated.

Mr. Penski presented the Treasurer's report for Mr. Klapper. Mr. Klapper has pointed out that the Treasurer's reports are a little misleading due to the fact that free meals to awardees and subsidized meals for students and retired members should appear under the costs of awards and subsidies rather than meal expenses.

Committee reports were as follows:

Awards and National Nominations: Dr. Kaufman stated that she needs more nominations for the Maryland Chemist Award to be given in December. She requested that we submit written nominations to her as soon as possible.

Chemical Education and Safety. Sister Vincent announced that the 1981 Workshop will take place at Notre Dame College, Knott Science Center, on November 7, 1981. The topic: "Effective Management: Getting Things Done Through Others" was chosen by the Executive Committee.

Membership. Miss Kirk reported that one student joined the Society in April. It was suggested that she revive the custom of sending a letter of welcome to each new member. They were formerly entertained at dinner for one meeting during their first year in Maryland. Miss Kirk was requested to obtain the list of members, and estimate the cost of such a project.

Publicity. Dr. Jones reported that the Remsen copy is needed as soon as possible, if we are to have an announcement in the papers.

Chesapeake Chemist. Ray Petersen reported that the May/June issue of *The Chesapeake Chemist* is at the printers. While we have found a new printer, it might be well to locate another. Mary Salb will approach current advertisers during the summer to obtain ads for next year. The deadline for the September issue is July 25, 1981.

MARM. Dr. Caret announced that a tentative agreement has been signed with the Hilton Hotel for the 1986 MARM, to be held in Baltimore on March 11-14, 1986. Prices have been agreed upon. The National meeting is in April at Atlantic City that year. The Pittsburgh Conference has been informed that we are meeting, so that conflicting dates may be avoided.

Archives. Dr. Silversmith mentioned that since the Section was formed in 1914, the next anniversary celebration should be in 1989. He expressed appreciation for the support by the Section of the Intercollegiate Conference on April 11, 1981. The meeting was very successful.

Councilors. Mr. Parr sent a report, which was read by Dr. Roswell. Three of the four Councilors were present at the Atlanta meeting. All of the items on the agenda were discussed, but those regarding limiting terms of committee members and officers did not pass.

Dr. Kaufman has just been appointed to the Committee on Budget and Finance; this is a very important appointment.

Student Awards. Dr. Hoster reported that 19 students received student awards at the April meeting. This is the largest number thus far.

Congressional Science Councilor. Dr. Kaufman suggested that we should find someone to keep in contact with Mrs. Mikulski, who is interested in receiving advice on scientific matters.

New Business. Mr. Penski's suggestions for cooperating with the Maryland Academy of Science were as follows: (1) perhaps they would permit various societies to set up exhibits for a limited time at the Science Center; (2) they might be willing to provide low cost administrative support to scientific groups in Maryland; (3) possibly they could publish a low cost newsletter announcing forthcoming meetings of all Maryland scientific and technical groups. The suggestions were discussed, together with the idea of a "Mini" AAAS or a Symposium on the Chesapeake Bay. Several other groups are doing this, however.

The Long-range planning Committee was then discussed. Actually, attendance at our meetings is excellent, and the financial position of the Section is good. Dr. Miller observed that he had heard the remark that the Maryland Section had depth but no breadth. Dr. Kaufman suggested that someone should write a history of the Section, to include all of the things which we have sponsored, such as the Remsen, Maryland Chemist, Section Service and Student Awards. Dr. Rowell suggested that we should try to improve our relationship with the National Society. We must sell ourselves, from education in chemistry to opportunities for chemists.

It was also suggested that the Maryland Section have an open House at the New York meeting in August.

The meeting was adjourned at 9:15 P. M.

Respectfully submitted,
Frances C. Hummel, Secretary

MARYLAND SECTION FUTURE PROGRAM

<u>Date</u>	<u>Location</u>	<u>Speakers</u>	<u>Topic</u>
October 21	W. R. Grace	Patrick Hoffman McCormick & Co.	Authentication of Natural Flavorants by Isotopic Analysis
		To be announced W. R. GRACE	Zeolites in Industry
		Janet Graselli SOHIO	IR Spectroscopy
November 18	Edgewood Officers' Club	Amoretta Hoeber System Planning Corp. Poster Session	U.S. Policy in Chemical/ Biological Warfare
December 16	College of Notre Dame		Maryland Chemist Award
January	No meeting		
February 17	College of Notre Dame	Gary Posner Johns Hopkins Carol Frischman ACS	
March 17	College of Notre Dame	Doris Warren Houston Baptist College Yale Caplan Medical Examiner's Office	Environmental Chemistry Drugs, Chemicals and Death
April 28	Western Md. College		Student Awards Night
May	Johns Hopkins		Remsen Award

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FACSS ANNUAL MEETING

The eighth annual meeting of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) will be held September 20-25 at the Philadelphia Sheraton Hotel.

The sponsoring organizations for the meeting are: Analysis Instrument Division, Instrument Society of America; Association of Analytical Chemists, Inc.; Division of Analytical Chemistry, ACS; Society for Applied Spectroscopy.

The meeting features several workshops and short courses in addition to more than fifty special symposia. Further information can be obtained from Publicity Chairman Richard J. Knauer, Armco, Inc., P.O. Box 1697, Baltimore, Maryland 21203.

PRE-RETIREMENT SEMINAR FOR
MARYLAND SECTION ACS MEMBERS

<u>Date</u>	<u>Speaker</u>	<u>Topic</u>
September 22	Dr. Bernard Harris Ms. Margaret Walker	Health & Medicine Social Security
October 6	Ms. Maggie A. Wilhelm O'Connor & Flynn Marvin M. Fribush Paine Webber	Housing & Real Estate Investments
October 20	Robert E. Holt John Graves	Legal Problems Medicare & Health Insurance

Place: College of Notre Dame
Knott Science Center
4701 N. Charles Street
Baltimore, Maryland 21210

Time: 7:30 - 9:40 P.M.

Admission: \$5.00/person for the series of three lectures

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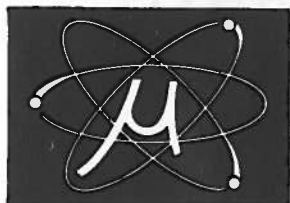
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