



THE

CHESAPEAKE CHEMIST

MARYLAND SECTION
AMERICAN CHEMICAL SOCIETY

VOL. LII

JAN. - FEB., 1996

NUMBER 1-2



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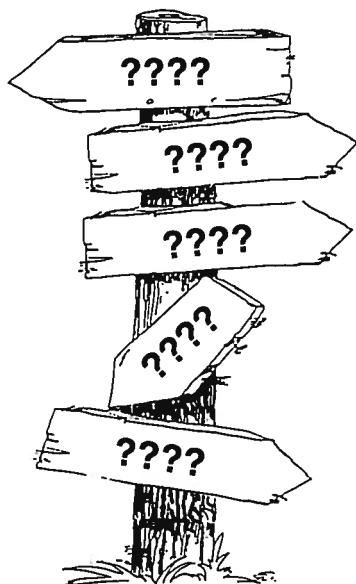
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Confused about which analytical meeting to attend or where to submit your papers in 1996?



**PSST!
LOOK DOWN HERE.**

Call for Papers Deadline: April 15, 1996

The 1996 EAS will be held November 17 - 22, 1996 at the Garden State Convention Center and the Doubletree Hotel (formerly the Radisson) in Somerset, New Jersey. In 1996, we hope to increase the number of contributed papers, which in 1995 formed almost 60% of the technical program.

You can be part of the 1996 EAS. We solicit your contributions for consideration by the Program Committee. Papers in all areas of the analytical and allied sciences are welcome. Please submit a 200 to 250 word abstract of the proposed paper, indicating your preference for either oral or poster format to: Program Committee, P.O. Box 633, Montchanin, DE, 19710-0633 U.S.A. If the paper is accepted, the title and author(s) will be considered final. The deadline for receipt of preliminary abstracts is April 15, 1996. We do not require a special form for submission of the preliminary abstract, but please type your submission. In May 1996, authors of proposed papers will be notified regarding the acceptance of their paper by the Program Committee.

EAS FACTS IN BRIEF: EAS is a non-profit [501(c)(3)] scientific organization run totally by volunteer scientists. The 1995 EAS attracted almost 5000 attendees and included 467 Technical Papers, 7 CONFERENCES-IN-MINIATURE, 23 EAS Short Courses, 27 EAS Exhibitor Workshops, 5 Seminars, 8 Tutorials, and 301 exhibit booths. In 1996, we expect the advance Registration fee to remain at a low \$60. For more information, call the EAS HOTLINE (302-738-6218), send a FAX to the EAS FAXLINE (302-738-5275), or write to EAS, P.O. Box 633, Montchanin, DE 19710-0633. EAS also maintains a Home Page on the Internet at the URL: "http://www.eas.org/~easweb/", as well as e-mail to easweb@eas.org.



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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 the Editor. Send advertising copy and inquiries to the Business Manager. 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.

JOHN WILLIAM DALY

John Daly is a native of Portland, Oregon. He received a B.S. in biochemistry (1954) and an M.A. in organic chemistry (1955) from Oregon State College and then received a Ph.D. in organic chemistry from Stanford in 1958.

From 1958 to 1978 he held several positions within the National Institute of Health and since 1981 he has been chief of the Laboratory of Bioinorganic Chemistry at NIH. Since 1978 he has also been an adjunct professor in the Department of Pharmacology and Experimental Therapeutics at the University of Maryland School of Medicine, and since 1983 he has been a research associate in the Department of Herpetology at the American Museum of Natural History.

Dr. Daly is a member of the American Chemical Society, the American Association for Advancement of Science, the American Society of Pharmacology and the Society of Neuroscience among other professional organizations, and he serves on the editorial boards of *Molecular Pharmacology*, *Biochemical Pharmacology*, *Cellular Neurobiology*, *Toxicology*, and *Archives Internationales de Pharmacodynamie et de Therapie*.

Among the honors received by Dr. Daly are the Hillebrand Award of the ACS in 1978 and a 1989 Presidential Rank Meritorious Award. In 1991 he was elected a fellow of the AAAS and in 1992 and 1993 he received outstanding performance awards.

Dr. Daly holds six patents and has published nearly five hundred research papers, numerous reviews and book chapters and one monograph.

BIOLOGICALLY ACTIVE ALKALOIDS FROM POISON FROGS: SYNTHESIS OR SEQUESTRATION

Amphibian skin has provided a wide range of biologically active alkaloids, many of which have unique profiles of pharmacological activity and therapeutic potential. Over three hundred alkaloids have been identified and structures of over a dozen different classes of alkaloids have been elucidated. These include the batrachotoxins, which are potent activators of sodium channels, the histrionicotoxins, which are noncompetitive blockers of nicotinic receptor channel complexes, the pumiliotoxins, which have myotonic and cardiotoxic activity due to effects on sodium channels, and epibatidine, a potent analgesic, whose activity is due to selective agonist activity at nicotinic receptors. These alkaloids are known in nature only in amphibian skin, except for homobatrachotoxin, which was recently identified in feathers and skin of a bird. Further classes of alkaloids from amphibian skin include monocyclic pyrrolidines and piperidines, bicyclic decahydroquinolines, pyrrolizidines, indolizidines, and quinolizidines and tricyclic pyrrolizidine oximes, pseudo-phrynamines, and coccinellines. Many if not all of these alkaloids appear to be sequestered into frog skin from the diet, which for such amphibians consists mainly of small arthropods. The origins of the batrachotoxins, histrionicotoxins, pumiliotoxins and epibatidine are of particular interest in view of their remarkable biological activities.

MARYLAND SECTION FUTURE MEETINGS

DATE	PLACE	SPEAKER	SUBJECT
March 13	McCormick	David McGurvey	Malaria, Current Research
April 17	Western Maryland	Jeffrey Smart	History of Chemical Warfare up to and Including the Civil War
May 15	Johns Hopkins	Awardee	Remsen Award

FEBRUARY MEETING

SCHEDULE:

- 6:00 Social Hour
7:00 Dinner
8:00 John W. Daly
National Institute of Health
"Biologically Active Alkaloids
from Poison Frogs: Synthesis
or Sequestration"

Dinner reservations should be made by mailing checks, payable to Maryland Section of ACS, to

Dr. Shirish Shah
College of Notre Dame
4701 North Charles Street
Baltimore, MD 21210

by February 7. Late reservations may be made by calling

(410) 532-5712

by February 9; an answering machine is available at this number.

Dinner price is \$16.00 per person, but spouses and retired chemists may attend for \$14.00; students may attend for \$8.00.



JOHN W. DALY

DATE:

Wednesday, February 14, 1996

PLACE:

Doyle Building
College of Notre Dame
North Charles Street
Baltimore

It is not necessary to be a member of the American Chemical Society to attend. You may attend the lecture without attending the dinner.

GALBRAITH INTRODUCES HOME PAGE

Galbraith Laboratories, Inc., a worldwide provider of analytical services, has announced its introduction of an Internet home page: <http://www.galbraith.com/labinfo>.

Galbraith, founded in 1950, serves over 3,500 industrial firms, research foundations, government agencies and universities. Services provided by the laboratory include elemental analysis, trace analyses, regulatory testing (including GLP and cGMP), environmental analyses, physical property testing, compendial methods, assays, and method development.

Galbraith's home page provides 24-hour access to information regarding the laboratory's services, pricing, quality assurance program, discount options, and sample submission process. Using this new service, clients can readily obtain and download information, as well as request other assistance.

Galbraith is a regular advertiser in *The Chesapeake Chemist*.

SCIENCE FAIR JUDGES

Judges are needed for the Baltimore Science Fair, held in late March, and the Morgan State Science and Engineering Fair, in April. Volunteers should contact Mike Zapf.

University of Maryland, Baltimore County

**Department of Chemistry and Biochemistry
Spring 1996 Seminar Schedule**

February 13	Dr. Rinaldo Poli University of Maryland College Park	"Coordination Chemistry: Bridging the Gap Between Werner Complexes and Low-Valent Organometallic Compounds"
February 20	Dr. Dinshaw Patel Sloan-Kettering Cancer Institute	"RNA Structure, Interactions and Function in Solution"
March 5	Dr. Brian Matthews University of Oregon Eugene, OR	"Structural and Genetic Analysis of the Protein Folding Problem".
March 13*	Dr. Peter Kollman University of California San Francisco, CA	"Molecular Dynamics Simulations of Molecules of Organic Chemical and Biochemical Interest"
March 26	Dr. Pat Mariano UM, College Park	"Synthetic Organic Photochemistry"
April 2	Dr. Paula J. Grabowski University of Pittsburgh	"Regulated Splicing of Messenger RNA Precursors in Neuronal Cells"
April 30	Dr. Kenneth Breslaur Rutgers University Piscataway, NJ	"DNA Structure/Stability and Drug-DNA Interactions: A Thermodynamic Perspective".
May 21	Dr. Carl D. Hoff University of Miami Coral Gables, FL	"Activation of Sulfur-Sulfur and Sulfur-Hydrogen Bonds at Group 6 Metals: A Thermodynamic and Kinetic Study"
June 4	Dr. Stephen K. Burley Laboratory of Molecular Biophysics Howard Hughes Medical Institute Rockefeller University, NY	"X-ray Crystallographic Studies of Eukaryotic Transcription Factors"

Seminars are at 3:30 PM in Room 403, Biological Sciences Building unless otherwise noted
For additional information, contact Dr. Theodore Budzichowski at (410)-455-2523
or Dr. Bradley Arnold at (410)-455-2503
* Place to be announced, please call.

Proposed
BYLAWS OF THE MARYLAND SECTION
OF THE AMERICAN CHEMICAL SOCIETY
(Only those Bylaws being changed are included.)

Bylaw II. Objectives.

The objectives of the Section shall be the same as those in <Article II of> the Constitution of the SOCIETY, and in addition,

such intersectional and official activities as shall be approved by the Executive Committee which are not inconsistent with the above objectives.

Bylaw V. Organization.

Sec. 1. The officers of the Section shall be a Chairman, Vice-Chairman, Chairman-Elect, Secretary, and Treasurer.

Sec. 2. The Section shall have Councilors and Alternate Councilors as provided in the Constitution and Bylaws of the SOCIETY.

Sec. 3. The Executive Committee shall consist of the officers of the Section, the Councilors, Alternate Councilors, Past Chairmen residing within the territory of the Section, five Members-at-Large, <the Historian,> the Editor and the Business Manager of THE CHESAPEAKE CHEMIST, and the Chairmen of all standing committees.

Sec. 4. All officers, Councilors, Alternate Councilors, and other persons holding an elective office, shall be chosen from the MEMBERS.

Bylaw VI. Manner of Election and Terms of Office.

Sec. 1. Officers of the Section and Members-at-Large of the Executive Committee shall be elected annually and serve for a term of one year, beginning on January 1 following their election, or until their successors are <elected> qualified. The Vice-Chairman [Chairman-Elect shall succeed] shall automatically be nominated to serve in the office of Chairman upon completion of the term of the Vice-Chairman. The Chairman-Elect shall automatically be nominated to serve in the office of Vice-Chairman upon completion of the term of Chairman-Elect.

Sec. 2. Councilors and Alternate Councilors shall be elected for a term of three years, beginning on January 1 following their election, or until their successors are elected. The number of Councilors shall be determined by the SOCIETY.

Sec. 3. In the event of a vacancy in the office of Chairman, the Vice-Chairman [Chairman-Elect] shall assume the duties of the Chairman for the unexpired term and the Chairman-Elect shall assume the added duties of the Vice-Chairman when that position is vacant. In the event of a vacancy, <All other vacant> elective positions shall be filled for a period up to the next annual election by a vote of the Executive Committee. [In the event the office of Chairman-Elect is filled by such interim election, the Section shall elect both a Vice-Chairman and Chairman-Elect at its next annual election]. A Chairman may not serve more than one year unless <he (or she) had to assume> the duties of Chairman were assumed for a partial term to fill a vacancy.

Sec. 4. Nominations.

(a) The Chairman shall appoint in [January] August of the year preceding the election a Nominating Committee of 5 persons, not more than three of whom are to be members of the Executive

Committee. One of the appointees shall be the Vice-Chairman. The Chairman shall designate any one of the five to be Chairman of the Committee.

(b) Notice of the names of those <the persons serving> on the Nominating Committee shall be published in THE CHESAPEAKE CHEMIST [given to the members by March 30] by November of the year preceding year the election. This shall be prior to [the date of] meeting of the Nominating Committee to permit members time to suggest suitable candidates for elective [the] positions <named in Bylaw V> for which vacancies shall occur on December 31 of the following year.

(c) The Nominating Committee shall meet at such a time that its recommendations may appear in the [September] January issue of THE CHESAPEAKE CHEMIST. The Committee shall select one or more candidates for each position <named in Bylaw V> up for election.

(d) Before [October 1] February 15, members of the Section may nominate candidates for any office by providing the Section Chairman with nominating petitions containing the signatures of at least two percent of the Section members. To be valid, the signature of a member may not appear on behalf of more than one candidate for the same office. The names of any such MEMBERS so nominated shall be included on the ballots with the names of those nominated by the Nominating Committee.

(e) In all cases, before a name can be placed on the ballot, the nominee must agree to serve if elected.

(f) Publication of the slate of candidates in THE CHESAPEAKE CHEMIST and its mailing shall be considered adequate notice to the members.

Sec. 5. Elections.

(a) The elections shall be held by ballot <which will be> mailed in or with THE CHESAPEAKE CHEMIST or separately before [October] May 15th to all members of the Section. *The names of all candidates shall appear on the ballot whether opposed or not.*

(b) The ballots must be returned to the Chairman by [November] July 10th.

(c) If a single candidate is to be elected, the candidate with the largest number of votes will be declared elected. Positions for which more than one candidate is to be elected (e.g., Member-at-Large of the Executive Committee) shall be filled by declaring those candidates elected who receive the largest number of votes. In the event of a tie vote, a special committee consisting of the Section Chairman, Vice-Chairman, Chairman-Elect, Secretary, Treasurer and Chairman of the Nominating Committee shall by a majority vote determine the winner.

(d) The Chairman of the Section shall count the ballots in the presence of witnesses and certify to the Executive Director of the SOCIETY, as soon as possible but not later than [December] August 1 of each year, the names, addresses, and terms of the elected Councilors and Alternate Councilors from Local Section for the following year.

Bylaw VII. Duties of Officers and Executive Committee.

Sec. 1. The duties of the officers shall be those customarily performed by such officers, together with those responsibilities prescribed by the Constitution and Bylaws of the SOCIETY and the Section bylaws along with other duties as may be assigned from time to time by the Executive Committee.

Sec. 2. The Chairman of the Section shall serve as Chairman of the Executive Committee, shall appoint members to standing committees, and may establish any standing [or ad hoc] committees authorized in these bylaws or by the Executive Committee. The Chairman shall appoint a Committee to audit the Treasurer's records annually.

Sec. 3. The Executive Committee shall be the governing body of the Section and, as such, shall have full power to conduct, manage, and direct the business and affairs of the Section in accordance with the Constitution and Bylaws of the Society and the bylaws of the Section.

Sec. 4. The latest edition of "Robert's Rules of Order, Newly Revised" shall be used as the authority to resolve procedural matters during business meetings.

Bylaw VIII. Committees.

Sec. 1. There shall be the following standing committees <whose Chairman shall be appointed by the Chairman of the Section except as noted elsewhere in the bylaws>:

<u>Archives and History</u>	Finance
Awards and Nominations	High School Activities
National Nominations	House
Maryland Chemist Awards	Investment
Maryland Service Award	<u>Long Range Planning</u>
Remsen Memorial Award	Member Assistance
Student Awards	Membership
W. R. Grace and Co. Award	Program
Bylaws	Publicity
Chemical Education and Safety	Public Relations
Education	Women Chemists

Sec. 2. The Chairman or Executive Committee may establish, [or] abolish, and define the duties of any ad hoc committee. The duties of all committees shall be as described from time to time by the Executive Committee. <The Executive Committee may establish or abolish standing and ad hoc committees.>

Sec. 3. The Vice-Chairman [Chairman-Elect] of the Section shall be the Chairman of the Program Committee.

Sec. 4. The Chairmen of the various Awards and National Nominations Committees shall submit the names of all nominees and all supporting documents along with the committee's recommendations to the Section Chairman. Submissions must be made by the dates that follow:

Maryland Chemist Award	1 July of the year of award
Maryland Service Award	1 August of the year of award
Remsen Memorial Award	1 December of year preceding award

Sec. 5. The final selection of individuals for Section awards or nominations for other awards shall be made by a committee consisting of the Section Chairman, Vice-Chairman, Chairman-Elect, Treasurer, Secretary and Immediate Past-Chairman of the Section.

Sec. 6. Recipients of Maryland Chemists Award must have been members of the Section for a minimum of five years and have made outstanding contributions to chemistry as defined in <Article II of> the Constitution of the SOCIETY (Chemistry is defined in very broad terms.). The work on which the award is based should have been performed in Maryland.

Sec. 7. The Investments Committee shall select appropriate investments for the Section's funds subject to approval of the Executive Committee. When necessary the Investment Committee shall have independent authority to direct the Treasurer on buying or selling an investment. The Treasurer shall report the status of all such actions at each Executive Committee Meeting or on request by the Section Chairman. The Investment Committee should consist of three members, preferably past Treasurers with some investment experience.

Sec. 8. The Finance Committee shall prepare an annual budget for annual review by the Executive Committee.

Bylaw IX. Meetings.

Sec. 1. A regular meeting of the Section shall be one at which business of the Section, which may require a vote of the members, may be conveniently transacted.

Sec. 2. The Section shall hold not less than 6 regular meetings each year, at places and times designated by the Executive Committee.

Sec. 3. The Section may hold special business meetings at the call of the Executive Committee, or by the request of 50 members of the Section. Any other meetings shall be called only by the Executive Committee. The notices of special business meetings shall state the exact nature of the business to be transacted and no other business shall transpire at such meetings.

Sec. 4. Due notice of all meetings shall be sent to each MEMBER, ASSOCIATE MEMBER, National Affiliate, and Local Section Affiliate of the Section. A quorum for all meetings of the Section shall consist of 4% of the members of the Section. In the absence of a quorum, no business shall be transacted, except that any pending business shall be tabled to a meeting to be held on a specified date.

Sec. 5. The Executive Committee shall meet not less than 4 times each year upon due notice to its members at the call of the Chairman or at the request of a majority of the members of the Committee. In the absence of a quorum, which shall be 25% of the members of the Executive Committee exclusive of Past Chairmen not serving in another capacity of the Executive Committee, called meetings of the Executive Committee shall adjourn to a specified date.

CHANGE OF ADDRESS

It is not necessary to notify The Chesapeake Chemist of address changes. We get our mailing labels from the ACS each month, so if you inform the ACS of your address change, we will automatically receive the correct label.

BY-LAW AMENDMENTS

The bylaws of the Section are being updated. The procedure being followed for amendment is provided in Section Bylaw XI. After several years of discussion, the proposed amendments to these bylaws were provided to the National Committee on Constitution and Bylaws in April 1995 which returned five pages of comments in September 1995. Final approval of the Executive Committee was obtained September 20, 1995.

The amended bylaws may be adopted if 2/3 of the ballots returned to the Secretary, within 30 days after the mailing of the notice, are in the affirmative. The amendments will become effective upon approval by the Society Committee on Constitution and Bylaws.

The substantive changes are outlined below:

1. The position of Vice-Chairman has been added.
2. The Vice-Chairman will chair the Program Committee rather than the Chairman-Elect.
3. The election will be held several months earlier than previously.
4. The Chairman-Elect will automatically be nominated as next Vice-Chairman and Vice-Chairman will automatically be nominated as next Chairman. There will be no automatic appointments to the position of Chairman.
5. The Chairman may establish and define duties of *ad hoc* committees.

A ballot and the proposed amended Bylaws II, V, VI, VII, VIII, and IX are attached. The underlined parts are additions, and the [bracketed] parts are deletions. The unchanged Bylaws I, III, IV, X, XI, and XII were published in the March 1992 *Chesapeake Chemist*.

The additions by the National's Committee on Constitution and Bylaws are in *italics*, and their deletions are in <angle brackets>. No notation is provided for those cases where parts of a sentence are transposed without changing the meaning.

Submitted by: Elwin C. Penski, Chairman
Bylaws Committee

Ballot for Proposed Amendments of the BYLAWS OF THE MARYLAND SECTION OF THE AMERICAN CHEMICAL SOCIETY

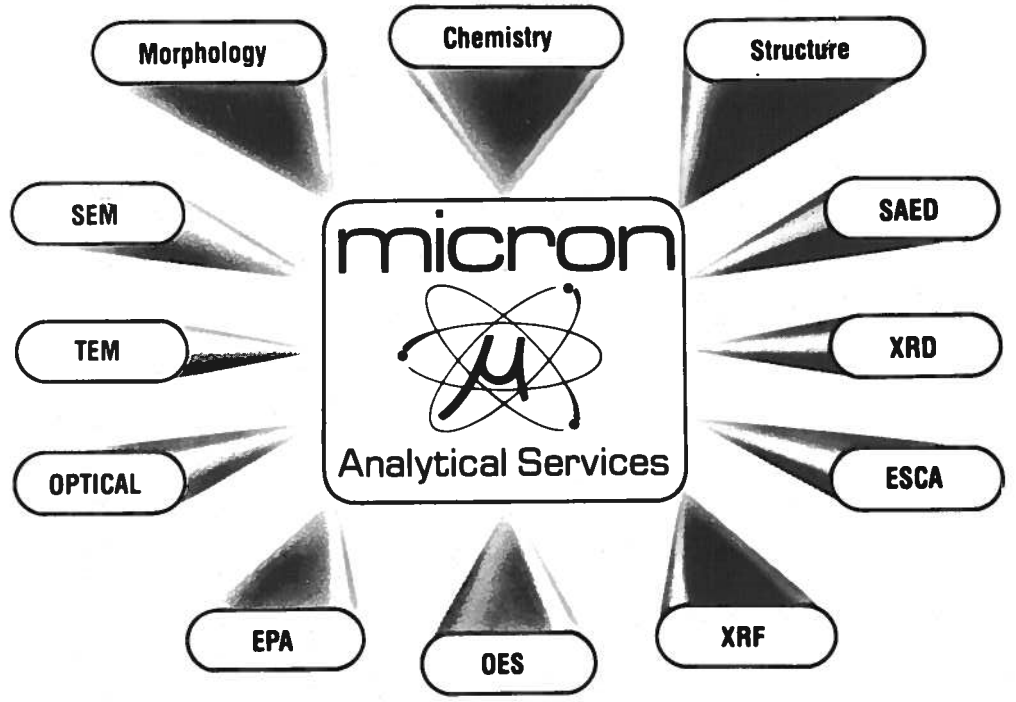
FOR _____ AGAINST _____

Mail ballots to the Section Chairman (Address on 3rd page of current issue of The Chesapeake Chemist) within 30 days after the mailing of this notice.

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