

Chesapeake Chemist

*Maryland Section
American Chemical
Society*



**Burkshire
Marriott
Conference
Hotel**

December 7

2005 Maryland Chemist

Dr. Kit H. Bowen, Jr.

Maryland Chemist Award

The Maryland Chemist Award was established in 1962 to recognize and to honor, each year, a member of the Maryland Section for outstanding achievement in the fields of chemistry. The achievement, as originally stated, may be in pure or applied chemistry, chemical engineering, or chemical education. Some recipients have distinguished themselves in management.

The section's Bylaw VIII (applicable section quoted below) establishes the rules of selection of recipients of the Maryland Chemist Award. Recommendations of the Awards Committee must be approved by the section officers.

“Recipients of the Maryland Chemist Award must have been members of the section for a minimum of five years and have made outstanding contributions to chemistry as defined in the Constitution of the Society (chemistry is defined in broad terms). The work on which the award is based should have been performed in Maryland.”

Previous Recipients of the Award

1962 E. Emmet Reid	1977 Henry C. Freimuth	1992 Craig A. Townsend
1963 W. Mansfield Clark	1978 Gunther L. Eichhorn	1993 Ernest F. Silversmith
1964 Alsoph H. Corwin	1979 Emil H. White	1994 Yale H. Caplan
1965 John C. Krantz, Jr.	1980 M. Gali Sanchez	1995 Richard H. Smith, Jr.
1966 Belle O. Talbot	1981 Paul O. P. Ts'o	1996 Shekar Munavalli
1967 Walter S. Koski	1982 Joseph L. Katz	1997 WuCheng Cheng
1968 George L. Braude	1983 Shih-Yi Wang	1998 Joel F. Liebman
1969 Leslie Hellerman	1984 Nicolas Zenker	1999 Marc D. Donohue
1970 Paul H. Emmett	1985 John Lambooy	2000 Haleem J. Issaq
1971 Giles B. Cooke	1986 David F. Roswell	2001 Raymond A. Mackay
1972 Arnold M. Seligman	1987 Gary H. Posner	2002 R. S. Hosmane
1973 Lester P. Kuhn	1988 Edward J. Poziomek	2003 Linda M. Sweeting
1974 Joyce J. Kaufman	1989 Catherine C. Fenselau	2004 Michael F. Summers
1975 Benjamin Witten	1990 Alex Nickon	
1976 Richard L. Hall	1991 Cecil H. Robinson	

December Historical Events in Chemistry

by Leopold May, The Catholic University of America, Washington, D.C.

December 6, 1920 George Porter studied free radicals produced in gaseous photochemical reactions using the flash-photolysis method that he developed. He shared the Nobel Prize in 1967 with Manfred Eigen and Ronald G. W. Norrish for their studies of extremely fast chemical reactions, effected by disturbing the equilibrium by means of very short pulses of energy. He was born on this date.

December 8, 1878 Eugene C. Bingham, who was born on this date, was a researcher on plastic flow and viscosity.

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ACS Maryland Section - Officers and Committee Chairs

Section Officers

Chair: Alan C. Samuels, 410-436-5874
alan.samuels@sbccom.apgea.army.mil

Vice-chair: Sandra K. Young
410-306-0679
skyoung@arl.army.mil

Chair-elect: Stephanie J. Watson
301-975-6448
stephanie.watson@nist.gov

Secretary: Lev Ryzhkov, 410-704-3831
lryzhkov@towson.edu

Treasurer: Angela Sherman, 410-532-5713
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4701 North Charles Street
Baltimore, MD 21210
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Councilors

Merle I. Eiss 410-484-0521 meiss32@aol.com	Donald Jones 202-364-2740 djones@erols.com
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David Roswell 410-617-2458 droswell@loyola.edu	Charles Rowell 410-647-9452 rowell@toad.net
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Alternate Councilors

Shekar Munavalli, Shirish Shah, Joseph Topping

Members at Large

Maurice Iwunze, Jan Kolakowski, Liina Ladon
Demetrium Michos, Sara Narayan, James Nwaba

Committee Chairs

Student Awards (March):
George Farrant, 410-455-4120
gfarrant@ccbcmd.edu

Remsen Award (May/June): Lev Ryzhkov

Braude Award (October): Charles Rowell

Maryland Chemist Award (December):
Shekhar Munavalli, 410-436-2819
Shekar.munavalli@sbccom.apgea.army.mil

Maryland Service Award:
Shree Iyengar, 410-541-2266

Maryland Section on the Web: <http://mdchem.org>

Webmaster: Sandy Young
(chemists4fun@yahoo.com)
Paul Smith, pjsmith@umbc.edu

Programs

Archives: Ernie Silversmith, 443-885-3214

Career Planning: Linh Cheong, 410-762-1159

Earth Day: Paul Smith & Sandy Young

Environmental Issues:
Shirish Shah, 410-704-2720
sshah@towson.edu
Sandy Young

Finance Committee:
Jan Kolakowski,
410-436-2755, jan.kolakowski@us.army.mil

Government Relations:
Shirish Shah & Robert von Tersch

Long Range Planning: Shekar Munavalli

MARM: Shirish Shah & Alan Samuels

Membership: Merle Eiss

Minority Affairs:
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Women Chemists/Younger Chemists:
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Shirish Shah
Ellen Pisciotta

Kids & Chemistry/Chemistry-in-the-Library:
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Sandy Young

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Shirish Shah & Sandy Young

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December Dinner Meeting

Wednesday, December 7, 2005

Burkshire Marriott Conference Hotel, Towson, Maryland

6:00 - 6:45 pm Registration and Social

6:45 - 7:45 pm Dinner

7:45 - 8:00 pm Maryland Chemist Award Presentation

8:00 - 9:00 pm Dr. Kit H. Bowen, Jr.
Johns Hopkins University

Cost for the dinner is \$25.00 for members; \$20.00 for spouses, retired chemists and guests, and \$10.00 for students. For reservations please contact Shirish Shah at 410-323-0803(H) or by email at dr.shah@juno.com. For directions to the Burkshire Marriott Conference Hotel, see page 6.

Contributing to a Molecular Level Understanding of Condensed Phase Phenomena through the Study of Clusters

Clusters are gas phase aggregates of atoms or molecules which are held together by the same forces responsible for cohesion in solids and liquids. By measuring the photoelectron spectra of size and composition-selected cluster anions, one can study topics that sit on the edge of biophysics, in the heart of chemistry, and at the borders of materials science and condensed matter physics. Selected examples of problems we have addressed from each of these areas will be presented.

Biographical Note:

Kit H. Bowen, Jr., received his B.S. degree in chemistry from the University of Mississippi. He then went on to earn his M.S. and Ph.D. degrees from Harvard University. He also did post-doctoral research at Harvard University for two years. Dr. Bowen joined the faculty of Johns Hopkins University as an assistant professor of chemistry in 1980. He was successively promoted to associate professorship and full professorship in 1986 and 1990 respectively. He is presently the E. Emmet Reid Professor of Chemistry and Materials Science. His research interests are centered around clusters and nanoparticles with particular emphasis on condensed phase phenomena that lack atomic or molecular counterparts. Dr Bowen is a Fellow of the American Physical Society. He was the recipient of a Humboldt Research Prize. He has served on the Editorial Board of the Journal of Chemical Physics. From 1990 to 1993 and 1997, he served as a visiting professor at the University of Paris and at several universities in Japan. Under his guidance, nineteen graduate students thus far have obtained their doctoral degrees. His prolific record of publications includes over 110 scientific papers.

Maryland Chemist Award Citation:

The Maryland Chemist Award for 2005 is presented to Kit H. Bowen, Jr., in acknowledgement of his outstanding contributions to enhancing our knowledge of the molecular level interactions of the condensed phase phenomena via the study of clusters and nanoparticles, unraveling the nature and mystery of the forces responsible for order and cohesion in solids and liquids, for demonstrating and applying the principles of biophysics to furnish information about the size and composition of the cluster anions, for bringing together material science and condensed matter physics and furthermore, in admiration of his being an inspired educator and acknowledged scholar in his field of specialization and a prolific publisher.

Awarded this 7th day of December 2005 with the appreciation and esteem of his fellow professionals.

Nominations for the 2006 Maryland Chemist Award

The Maryland Chemist Award Committee is accepting nominations for the 2006 Maryland Chemist Award. Supportive documentation should include copies of the resume of the nominee and his/her list of publications. A short statement describing the outstanding contributions of the nominee to scientific research, education, industry, technology, etc., will be helpful and appreciated. Please send nominations to S. Munavalli, 700 Paige Circle, Bel Air, MD, 21014. The deadline for submission of nominations is April 15, 2006.

Announcing new student travel awards

The Maryland Section announces new student travel awards, consisting of up to \$300 for travel and expenses to attend a national or regional American Chemical Society meeting. The awards are open to undergraduate student affiliates of the ACS who are enrolled full time in a college or university in the section.

Applications for an award should include the following:

- 1) the meeting you plan to attend along with location, dates,
- 2) an estimated budget (cost for travel, registration, lodging, and meals),
- 3) a 250-word essay describing your motivation for attending the meeting (if you plan to present, include a description of the work to be presented), and
- 4) a letter of support from a faculty member in your department

Review of applications will begin February 2006. Applications should be mailed to Paul Smith, UMBC, Department of Chemistry and Biochemistry, 1000 Hilltop Circle, Baltimore, MD, 21250.

Maryland Section Executive Committee Ballot for 2006

Below is the ballot for the 2006 Maryland Section Executive Committee. The ballot is being mailed to the members via the Chesapeake Chemist, due to time constraints.

Please mark the ballot and then place it in an envelop, with your name written on the outside of the envelop. Mail your sealed ballot to Dr. Shirish Shah, Chemistry Department, Towson University, Towson, MD,21252.

The ballots will be counted by the secretary of Maryland Section, for the official count.

Maryland Section Executive Committee Ballot for 2006

Officers: Chair:	Sandra K. Young	_____
	Vice-Chair: Stephanie Watson	_____
	Chair-Elect: Lev Ryzhkov	_____
	Secretary: Sara Narayan	_____
	Treasurer: Angela Sherman	_____
Councilors:	Donald Jones	_____
	David Roswell	_____
Alternate Councilors:	Shekar Munavalli	_____
	Shirish Shah	_____
	Joe Topping	_____
	Paul Smith	_____
Members-At-Large:	Liina Ladon	_____
	Jan Kolakowski	_____
	Karen Hatwell	_____
	Maurice Iwunze	_____
	James Nwaba	_____

Directions to the Berkshire: Take exit 25, Charles Street, from 695. Follow Charles Street about 2 miles to Towsontown Blvd. Turn left. At West Burke Ave turn right. The Berkshire is on the left side as you enter West Burke Ave. Meeting attendees should proceed to the left lane. Turn left into the Berkshire's parking entrance. Turn the corner and make an immediate right into the P2 parking garage. Please the press intercom button for admittance to the elevators. Proceed to the front desk to get a parking pass required for your car. Look for signs posted in the lobby and elevators to locate the dining room.

ACS Maryland Section Survey

This survey will help us to plan for next year's activities. Please take a few minutes evaluate the activities for the year, marking each with a number from 1 (Best) to 5 (Worst). Then please mail your survey responses to Shirish Shah, Chemistry Department, Towson University, Towson, MD, 21252.

Activities

- | | |
|-------------------------------|---|
| _____ Monthly Dinner meetings | _____ Chemistry Olympics |
| _____ Chesapeake Chemist | _____ Chemagination |
| _____ Award Dinners | _____ SAACS(Chemistry Clubs at Colleges and Universities) |
| _____ Students | _____ Earth Day Celebration |
| _____ Remsen | _____ Workshops |
| _____ Braude | _____ Bowling Challenge |
| _____ MD Chemist | _____ National Chemistry Week |
| _____ Kids and Chemistry | |
| _____ Others _____ | |

History continued.

- December 10, 1967 Start of "Project Gasbuggy," the world's first commercial experiment with nuclear mining under the New Mexico desert.
- December 12, 1960 At the meeting of American Nuclear Society, it was announced that the first pure compound of californium was synthesized.
- December 18, 1856 Birthdate of Joseph J. Thomson, who discovered the electron in 1897. In 1906, he was awarded the Nobel Prize in Physics in recognition of the great merits of his theoretical and experimental investigations on the conduction of electricity by gases.
- December 19, 1813 Thomas Andrews, who discovered that every gas has a critical temperature above which it cannot be liquefied, was born on this date.
- December 22, 1884 Birthdate of St. Elmo Brady, the first black man to earn a Ph. D. in chemistry, in 1916, from the University of Illinois.
- December 24, 1818 Birthdate of James P. Joule, who discovered the law of heating of conductors. He was a researcher in mechanical equivalent of heat and discovered that temperature of gas falls when the gas expands without doing work (Joule-Thomson Effect). The unit of energy is named after him.

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History continued.

- December 25, 1876 Adolf O. R. Windaus, who was born on this date, received the Nobel Prize in 1928 for the services rendered through his research into the constitution of the sterols and their connection with the vitamins.
- December 28, 1818 Birthdate of Karl R. Fresenius, who did research in qualitative and quantitative analyses of inorganic substances.
- December 29, 1813 Birthdate of the inventor of xylonite (celluloid), Alexander Parkes. He also made some electroplating inventions.
- December 31, 1881 Birthdate of Colin G. Fink, who was a researcher, developer, industrialist, and a teacher in electrochemistry.



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