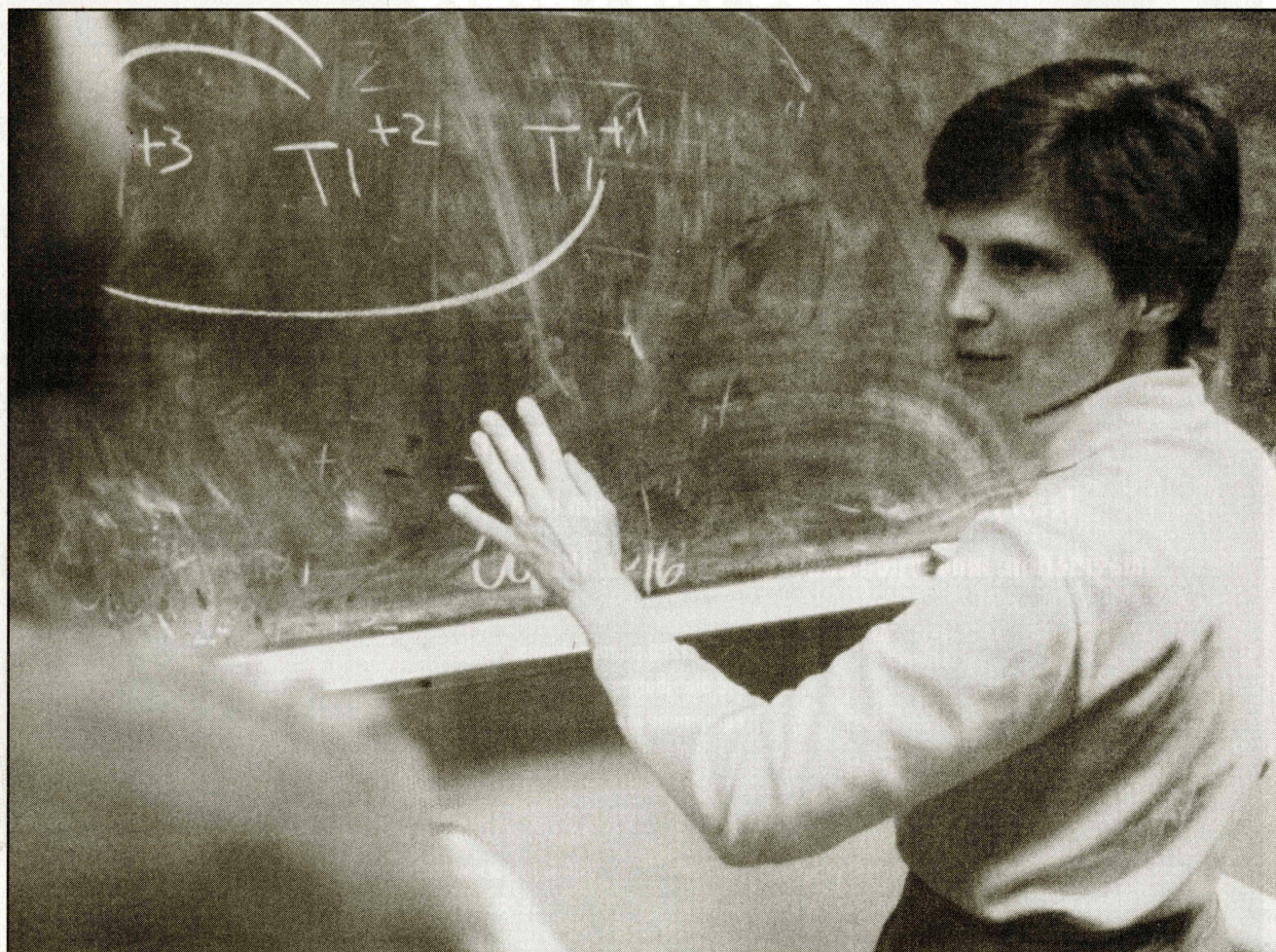


# THE NUCLEUS

Centennial Year

November 1998

Vol. LXXVII, No. 3



## Monthly Meeting

*Norris Award to Angelica Stacy*

## National Chemistry Week

*Seventh Annual Northeast Regional Undergraduate  
Chemistry Day*

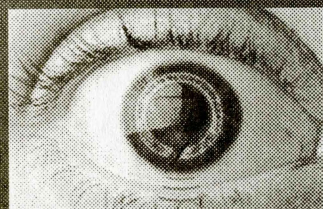
## Centennial History

*James Flack Norris*

## Book Review

*Three books about the Internet/Web*

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*February 1999 issue: December 18, 1998*

## THE NUCLEUS

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# The James Flack Norris Award

for Outstanding Achievement in the Teaching of Chemistry

by M.S. Simon<sup>1</sup>

When the will of Anne C. Norris was read, the Northeastern Section was informed that it was a beneficiary, with an outright gift of \$10,000 and the sharing of the residue of her estate in equal parts with the Massachusetts Institute of Technology. The will stated, "It is my wish that the Directors of said Society shall use the money in any way they may see fit to perpetuate the memory of my said husband, James F. Norris." Professor Norris had died in July, 1940, and the desire had not been satisfied for a way to honor the man who had made such a mark as teacher, confidential counselor, research scientist and personal friend during his years of teaching and research at Simmons College and MIT. His widow's bequest in 1948 provided the impetus.

A committee under the leadership of Gustavus J. Esselen, the Section's senior adviser, was set up to explore how best to use the money. The expectation was that the income from the bequest would amount to over a thousand dollars a year, a tidy sum, and in the April 1949 NUCLEUS Esselen requested suggestions from the Section's members. By June he had received twelve proposals and his committee consisting of Chester M. Alter (Boston University), Theodore C. Browne (Dewey and Almy), Ernest C. Crocker (ADL), Kenneth L. Mark (Simmons), Avery A. Morton (MIT) and John O. Percival (Monsanto) worked the problem for the rest of the year. The decision was announced in

January, 1950. The statement read "The James Flack Norris Award shall be made for outstanding achievement in the teaching of chemistry, particularly when demonstrated at college or secondary school levels rather than shown in research." This approach to memorialize Norris recognized the emphasis he placed on teaching, and the Committee's fear that another award for outstanding research would be lost in the crowd.

The announcement which appeared in the Nucleus for January, 1950 read:

*"The first national award for outstanding achievement in the teaching of chemistry is announced by the Northeastern Section of the American Chemical Society, Inc. in memory of the late James F. Norris. Teachers from schools, colleges and universities will be eligible. This is in accordance with the wishes of the late Anne C. Norris of Cambridge who left the Northeastern Section a bequest of \$10,000 plus half of the residue of the estate, to be used to perpetuate the memory of her husband, James F. Norris."*

*Believing in the importance of excellence in teaching as a contributing factor in the progress of chemistry, the Board of Directors of the Northeastern Section have selected this form of award as a memorial to Professor Norris, himself a teacher of great repute. The award will consist of a suitably inscribed certificate and a sum of money, and will ordinarily be given biennially, in the years when the Richards Medal for achievement in research is not awarded by the Northeastern Section.*

*Professor Norris was a student of Ira Remsen, one of chemistry's greatest teachers. (Norris) gained his outstanding reputation as a chemistry teacher at Harvard and Clarke (sic) Universities, as Professor at Vanderbilt University and Simmons College, and at the Massachusetts Institute of Technology where he became Director of the Research Laboratory of Organic Chemistry. He was Chairman of the Northeastern Section, was twice President of the American*

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*Chemical Society and served on its Board of Directors for eleven years."*

The early recipients were chosen by a secret committee, again led by Esselen, who remained active in promoting the memory of Norris for the next couple of years until his death in October, 1952. Open election of the Norris Award Committee did not begin until 1954, when it was realized also that the capital funds were adequate to

*continued on page 10*

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Take Brookline Ave. south. At the traffic light at the Fenway, turn left into the Fenway. \*Proceed to Avenue Louis Pasteur (first intersection right), turn right and into the first driveway on the left, the entrance to the parking lot. The parking attendant will tell you where to park.

**From Huntington Ave./Rte. 9:**

In Brookline Village turn into Brookline Ave. (northbound) and proceed to the intersection with The Fenway. Turn right and follow \* above. ◇

## Monthly Meeting

*The 801<sup>st</sup> Meeting of the Northeastern Section of the American Chemical Society*  
**James Flack Norris Award Meeting**

Thursday, November 12, 1998

**Simmons College, 300 The Fenway, Boston, Mass.**

5:30 pm Social Hour; a table of Career Services Literature and Aids will be available. Third Floor Conference Center, East Wing

6:30 pm Dinner

8:00 pm Evening Meeting, Rm. C-103, First Floor  
Dr. Michael J. Hearn, Chair, presiding  
*James Flack Norris* Dr. Edward R. Atkinson, Amherst, Mass.  
Introduction of the Awardee by Dr. Roger H. Soderberg, Dartmouth College, Hanover, N.H.  
Presentation of the Award by Dr. Charles L. Braun, Chair, Norris Award Committee, Dartmouth College  
Norris Award Address by Dr. Angelica Stacy

Dinner reservations should be made no later than November 5, noon. Please call or fax Marilou Cashman at (800) 872-2054. Reservations not canceled at least 24 hours in advance must be paid. Members, \$30.00; Non-members, \$35.00; Retirees, \$18.00, Students, \$10.00. **THE PUBLIC IS INVITED.**

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**Next Meeting:** Joint meeting with the Medicinal Chemistry Group, December 10, 1998, Boston College, Shay Room, Conte Forum. Afternoon Symposium: *New Synthetic Techniques in Combinatorial Chemistry*. 3:30: to be announced; 4:30 Dr. Alexander Domling, Morphochem, GmbH, Munich: "New heterocyclic multicomponent chemistry"; 5:30 Social hour and dinner; 7:30 Dr. Ivar Ugi, Technical University, Munich: "The chemistry of multicomponent reactions and their libraries - a combination of old and recent methods"

## Biography

Angelica M. Stacy.

As one of Angelica Stacy's nominators for the Norris Award wrote "Stacy's contributions are changing the national landscape of chemical education." Stacy took her PhD with Michael J. Sienko at Cornell University in 1981 and joined the faculty of the University of California at Berkeley in 1983, rising through the ranks to become Professor in 1995. During her career she has won numerous awards for her innovative teaching while establishing "a nationally-recognized program in solid-state chemistry."

Teaching has been central to Professor Stacy's work. Early in her

Berkeley career, she won a Presidential Young Investigator (PYI) award. As one of her nominators for the Norris Award notes, "At a time in her career when it was probably professionally risky for her to do so, she was one of the prime movers behind a meeting of Presidential Young Investigators who called for including more teaching in the priorities expected for faculty at doctoral institutions - a position that in some quarters was perceived as radical ....."

Professor Stacy was a co-organizer of the first Gordon Research Conference on chemical education (1994). There, and in her own teaching efforts, Professor Stacy has engendered glowing tributes such as the following, "one comes away breathless from a

## Centennial History

**James Flack Norris**

*For whom are named the Northeastern Section Award for excellence in teaching of chemistry and the Award in Physical Organic Chemistry'. Both awards, sponsored by the Northeastern Section of the ACS, are made possible through the will of Mrs. Norris, paragraph three, dated May 13, 1946 and affirmed by her codicil, dated May 21, 1947. In this will Mrs. Norris directed that the half of the residue of her estate passing to the Northeastern Section of the American Chemical Society be used as the Directors deem wise in their discretion to perpetuate the memory of her husband, James F. Norris.*

By Avery A. Ashdown<sup>2</sup>, M.I.T.

When James F. Norris began his assistantship in the Chemistry Department of the Massachusetts Institute of Technology in October 1895, he was

*continued on page 6*

*discussion of an educational issue with her, and clear that one is in the presence of a deep intellect who is genuinely and, especially, humanly invested in the welfare and development of students."* Recently, Professor Stacy and her colleagues have received a major NSF award for chemistry curriculum reform. Their approach uses "inquiry-based methods" and includes the development of new environmentally-relevant chemistry laboratory experiments. They are investigating whether such inquiry-based methods can be used successfully in Berkeley's large general chemistry and other courses.

One of Professor Stacy's former graduate students, who is now a professor at a liberal arts college, wrote in her Norris nomination, "I witnessed Angy's excellence in the classroom and ...observed the unique bond that is formed between a class and a truly great teacher." ◇

<sup>1</sup> From The NUCLEUS, 1996 LXXV (3), 4

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## James Flack Norris

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twenty-four years old and fresh from the doctorate awarded by Johns Hopkins University in June of that year. Born in Baltimore, Maryland, January 20, 1871, he was one of nine children of the Reverend and Mrs. Richard Norris (Methodist). His elementary schooling was at Miss Jennie Gardner's School for Boys in Georgetown, D. C., where his father was serving as a pastor. Later he attended the Central High School in Washington. While in this school, he was a member of the Drum Corps, High School Cadets. Secondary education completed, he enrolled in Johns Hopkins University in 1889 and remained through years of graduate study, leading to the doctorate in chemistry in 1895. At what exact age chemistry began to hold his interest is not certain but it must have been before 1892 when he was teaching this subject in the University of Maryland. His final year at J.H.U., 1894-5, was brightened by an appointment as a Fellow (stipend \$375, plus tuition). His life long pursuit of travel in summer, chiefly in Europe, began at this time. In 1892 he became the official delegate of the students of Johns Hopkins University to the 300th Celebration of the University of Dublin. In the summer of 1894 he worked with the U.S. Coast Survey, stationed at Lynn, Massachusetts. The summer of 1896 saw him, with Henry Fay (M.I.T.), touring England, France and Germany.

Not only teaching in the University of Maryland, but coaching classes in mathematics and science, in his final graduate year, at Johns Hopkins had, in a sense, prepared him for a life long devotion to teaching and research. In his first classes at M.I.T. he was associated with James Mason Crafts (of the Friedel and Crafts reaction) and gave a course in Organic preparations. The next year he added a series of lectures

<sup>1</sup> Now administered by the National ACS

<sup>2</sup> From *The NUCLEUS*, LXII (10), 312 (August 1965)

on the history of chemistry. In 1899 he gave the brief course in organic chemistry and became associated with Arthur Amos Noyes in the laboratory pursuit of organic preparations and reactions. The year 1900 saw him advanced to the rank of assistant professor of organic chemistry and engaged to Anne Bent Chamberlin, a student at the Museum of Fine Arts in Boston.

On February fourth, 1902, Anne and he were married in St. John's Church, Washington, D. C. where her parents made their home while she was a student at the Museum. Henry Fay, also a young professor at M.I.T. and a close friend, was best man at the wedding. The new Norris family took up residence at 124 Anawan Avenue, West Roxbury (Boston), near the home of Professor Frank H. Thorp of M.I.T., already working on his "*Outlines of Industrial Chemistry*," a text book for students, destined to be widely used. (First edition, October 1898, the third edition, in 1916, in collaboration with Warren K. Lewis, Professor of Chemical Engineering at M.I.T.)

The life-long friendship with Henry Fay began when both men came to M.I.T. as assistants in chemistry in 1895. Together they published their method for the "*Iodometric Determination of Selenous and Selenic Acids*" in volume 18, 1896, of the *American Chemical Journal*. This paper was the first bearing the name of Dr. Norris. It was followed at once by his thesis for the doctorate, "*The Action of Halogens on the Methylamines*" with Ira Remsen, appearing in the same journal, volume 19, 1896. These two papers head the list of seventy publications, mostly in the *American Chemical Journal* and the *Journal of the American Chemical Society*. Four books, all published by McGraw Hill, also came from his pen. The first, "*The Principles of Organic Chemistry*" 1912, third edition, 1933, total issue over 70,000. The second book, "*Experimental Organic Chemistry*," 1915, third edition, 1933, total issue also over 70,000. His textbook, "*Inorganic Chemistry for Colleges*" was published in 1921, third edition with Professor Ralph C. Young of

## James Flack Norris

continued from page 6

M.I.T. in 1938. "*Laboratory Exercises in Inorganic Chemistry*," co-author Professor Kenneth L. Mark of Simmons College, appeared in 1922.

In 1900, advancement to Assistant Professor of Organic Chemistry at M.I.T. gave him a larger share in the chemistry department. In spite of this favorable development, his official connection with M.I.T. was interrupted in 1904 by appointment to Professor of Chemistry at Simmons College, organized in Boston in 1899 and destined to be known, for a time, as the M.I.T. for women students. Through eleven years he devoted himself to building up the chemistry department at Simmons. While at Simmons, he took a sabbatical leave in 1910 to study physical chemistry with Professor Fritz Haber in the Technische Hochschule at Karlsruhe in Baden, Germany. With Mrs. Norris he took up living quarters; in a pension in Karlsruhe. Dr. Norris always took great satisfaction from this phase of his post-doctoral experience. He found, increasingly, that the physical chemical points of view he gained, gave him new insight into organic chemistry. The year was not all laboratory work. Dr. and Mrs. Norris passed a winter vacation in Berlin and Dresden. In the spring recess they traveled in Italy. During the summer of 1911, three of Dr. Norris' sisters joined them for a grand tour, including Paris, Holland, England, and Scotland.

Came the year 1915, Dr. Norris resigned his position at Simmons to accept the professorship of chemistry in Vanderbilt University in Nashville, Tennessee. Association with this outstanding University in the Southland, although very rewarding, was to be for only one year.

In June, 1916, he was asked to return to M.I.T. where, in October, he became Professor of General Chemistry. When he left Vanderbilt, students and staff combined to present him with a silver cigarette case, bearing the inscription "Sunny Jim." This appellation he accepted with great pleasure. In fact, all of his associates, both at that

time and thereafter, recognized his new name as most descriptive of his general disposition and character.

By the autumn of 1916, World War I, increasing in fury in Western Europe for two years, had been building up a condition of deep concern for the United States. In October 1917, Dr. Norris was granted leave of absence from M.I.T. for one year, to "render special service to the government in the present emergency." He worked first at the Bureau of Mines in Washington, D. C., on gas problems. Later he was in charge of "Offence Chemical Research" at the Bureau. Early in 1918 he was appointed Lieutenant Colonel, Chemical Warfare Service, U.S. Army. His headquarters were in London. In 1919 he was appointed to the Interallied Gas Conference. Finally, (1919) Dr. Norris was in charge of investigating the manufacture of war gases in the German chemical plants. His final war service was with the American University at Beaune, France. Honorably discharged from the service in July 1919, he returned to Boston to resume duties at M.I.T.

This renewed association with M.I.T. was to be enjoyed for twenty-one years, until his death on August 3, 1940. He remarked of his position, as Professor of Organic Chemistry, that it was the kind of job he had wanted all his life. Graduate students came from far and wide to work with him on researches leading to advanced degrees.

Dr. Norris' service to chemistry broadened with his association with M.I.T. He was an early chairman of the Northeastern Section (1904). All of his life he remained very loyal to his home section. In 1924 he became chairman of the Section on Chemistry and Chemical Technology of the National Research Council in Washington, D.C. He was granted a leave of absence from M.I.T. for this work. However, he was in Boston two days each week and thus able to keep in contact with his graduate students. In 1925 he was made an Honorary Member of the Royal Institution of Great Britain. In the same year he was elected President

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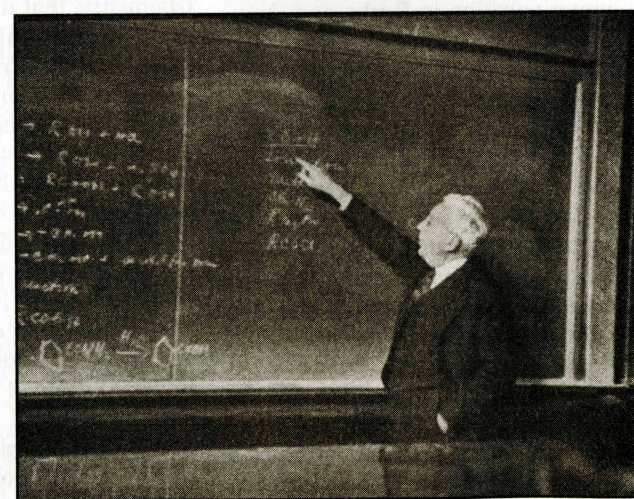
James Flack Norris in 1925. Mrs. Norris' favorite portrait



At the ACS Summer Meeting, Santa Fe, 1925  
L. to r.: Dr. Norris (President), Dr. Charles L. Parsons (Secretary), Indian chief, Mayor of Santa Fe



Dr. Norris at his desk, May 1924.  
The inscription by Dr. Norris reads: "Win with optimism, imagination and perseverance. James F. Norris, May 1924"  
(photo by Henry D. Hirsch, M.I.T., 1924)



Dr. Norris lecturing at M.I.T., 1936  
(photo by Paul Arthur, Ph.D., M.I.T., 1938)

## James Flack Norris

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of the American Chemical Society, a position he held for a second term. For three years, 1925-1928, he was Vice President of the International Union of Pure and Applied Chemistry. Eventually, association with the Union took him on several trips abroad, to Rumania in 1925, to Warsaw in 1927, to Lucerne, Switzerland, in 1936, and to Rome, Italy, in 1938. His long term as a Director of the national American Chemical Society ended in 1934 with a testimonial luncheon in New York

Two other activities were also in this period. First came the address on "Chemistry in National Defense" before the Institute of Politics at Williamstown, Massachusetts, in August 1926. Second, in June, 1928, he was chosen a member of the educational Delegation to the USSR, of which John Dewey of Columbia was chairman.

From early years, Dr. Norris was asked to be a special lecturer on organic chemistry at several different colleges. The first of these lectureships was at Simmons College in 1903. Next came Harvard for two years, 1912 to 1913. Among his students at Harvard was Louis P. Hammett, who, inspired by Dr. Norris, became the founder of physical organic chemistry in America. In 1913 he lectured on organic chemistry at Clark University in Worcester, Massachusetts. He had three periods of extended association with Bowdoin College, at Brunswick, Maine. This was the college of Hawthorne, Longfellow and President Franklin Pierce. In January 1925 Dr. Norris was named visiting professor at Bowdoin. In 1929 and in 1931 he was again a visiting Professor at Bowdoin. The college conferred on him her honorary Sc.D. in 1925.

A very important part of the life of Professor and Mrs. Norris was the several summers they passed at North Bridgton on Long Lake in western Maine. There they built a house in 1906 after plans drawn by Professor Harry W. Gardner of the Department of Architecture at M.I.T. They named

their summer home "Good Cheer." The center of social life of their home was the "porch" where, often, there were record dances in the evening. Dr. Norris had a den for study and writing detached from the main house where he worked every morning, writing on his books. After lunch he swam in the lake with companions and in the evening mingled with guests on the porch.

Dr. and Mrs. Norris were patrons of the art galleries both in the United States and in Europe. Dr. Norris was an ardent movie fan and a devoted follower of Sir Harry W. Lauder, Scottish comedian and entertainer for half a century. Many people, still living [that was in 1965!, ed.], will recall such Harry Lauder songs as, "I Love a Lassie," "Roamin' in the Gloamin'" and "It's Nice to Get Up in the Mornin' but its Nicer to Lie in My Baid."

Many honors came to Dr. Norris. He was elected to the Society of the Sigma XI, Phi Beta Kappa and Alpha Chi Sigma, the professional chemical fraternity. He was a member of the American Academy of Arts and Sci-

ences, the National Academy of Sciences and a fellow of the American Association for the Advancement of Science. He held honorary membership in the Chemical Society of Rumania and in the Royal Institution of Great Britain. He was elected vice-president of the American Academy of Arts and Sciences in 1936. He was Chairman of the Faculty of M.I.T., 1937-1939. Dr. Norris was very proud of the award of the Medal of the Institute of Chemists, conferred on him in May, 1937. In accepting the award he wrote to Dr. M. L. Crossley of the Institute of Chemists.

"I appreciate very much the high honor and will be much pleased to accept the Medal. I was gratified to learn that the award was made for both teaching and research. So far as I know, the Medal, awarded by your Institute, is the only one in which emphasis is placed on a man's influence, as a teacher, on young men electing to enter the profession of the chemist. I feel that a man can do a great deal in this world in influencing those who are

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## James Flack Norris

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undertaking a professional life."

The troubled situation in Europe in 1939, fomented by Hitler, argued against a walking tour in Germany, or Austria or Switzerland. Instead, Professor and Mrs. Norris toured Hawaii, California and Northwestern United States in June of that year.

The next summer, June 1940, the development of a cataract in his right eye, necessitated surgery which was successful. However, his troubles were not over. On July 1, 1940, phlebitis set in. On July 18th he was back in the Phillips House of the Massachusetts General Hospital for blood transfusions. In spite of all the resources of the hospital, his condition worsened steadily. He died on August 3, 1940, half way through his seventieth year. Funeral services were held at Mt. Auburn Cemetery, on August fifth, in Cambridge, Massachusetts, where his

grave is in the Norris lot. The day was bright and full of sunshine as if to capture some of the "Good Cheer" of the North Bridgton home and of the encouragement Dr. Norris had given his students and colleagues and friends over many years.

The original article was accompanied by eight pages of photographs and a listing of 41 students who received doctoral or master's degrees for work under his guidance.◇

## Norris Award

continued from page 4

give the award annually, instead of biennially.

The first presentation was made in May, 1951 at the Harvard Club to George Shannon Forbes, an old friend of Norris, an outstanding teacher at both Harvard and, in retirement, at Northeastern Universities. ◇

## Call for Papers

**Undergraduate Research Poster Session at the 217th National Meeting of the American Chemical Society**  
Anaheim, California, March 21-25, 1999

The ACS invites undergraduate students to submit abstracts of their research papers for presentation at the Undergraduate Research Poster Session, which will be part of the extensive programming for undergraduates at this national meeting. Send abstracts on standard ACS forms to:

LaTrease Garrison  
Student Affiliates Program  
American Chemical Society  
1155 Sixteenth Street,  
NW Washington, DC 20036  
Tel.: 800-227-5558x6166  
SAprogram@acs.org

**Deadline for receipt of abstracts:**  
December 1, 1998 ◇

## The 7<sup>th</sup> Annual ACS Northeast Regional Undergraduate Day

Saturday, November 7, 1998

Sponsored by:

**Northeastern Section, ACS, (NESACS),**

Dr. Michael J. Hearn, Chair

Hosted by:

**Boston University, Department of Chemistry,** Professors Warren Giering and Morton Hoffman

**Chemia** (ACS Student Affiliates Chapter at Boston University), Hilary Plake, President

**9:00 am Registration** (Metcalf Center Lobby)

**9:30 am Metcalf Auditorium** (SCI 107)

**Welcoming Remarks,** Prof. Warren P. Giering (on behalf of the Chemistry Department, Boston University)

Dr. Michael J. Hearn (on behalf of NESACS), Hilary Plake (on behalf of Chemia)

**9:45 am Keynote Address:** Chemical Snapshots of DNA, Prof. Thomas Tullius, Boston University

**10:30 am Coffee Break,** Metcalf Lounge

**10:45 am Small Group Sessions** (choose one)

"Finding a Position in the Industrial Sector", Peter Kingett/Julie Stephenson, Aerotek (30 min.)  
SCI 107

"Choosing a Graduate School", Warren Giering, Boston University (30 min.)  
SCI 115

**11:30 am Small Group Sessions** (choose one)

"Structure-Based Drug Design and Chemistry of SH2 Inhibitors", Dr. John L. Buchanan, ARIAD (30 min.)  
SCI 107

"Workshop: Hands-on Chemistry with Children", Prof. James A. Golen, UMass Dartmouth (60 min.)  
go to SCI 115

then to SCI 268 for laboratory activities

**12:00 noon Main Lobby**

**Graduate School and Industry Fair**  
Résumé Review, Frank Wagner, Strem Chemicals

**12:30 pm Science Fare Lounge, Lunch**

**2:00 pm Small Group Sessions** (choose one)

"Hydrogen Peroxide in a Small Lake", Barbara Southworth, M.I.T., Dept. of Civil and Environmental Engineering (30 min.)  
SCI 107

"Choosing a Graduate School", Warren Giering, Boston University (30 min.)  
SCI 115

**2:45 pm Student Affiliates, Planning Session**

Prof. Morton Z. Hoffman, Boston University  
SCI 115

**3:30 pm Adjournment**

## Nominations

**ACS 1999 Regional Awards in High School Chemistry Teaching**

A nominee must be actively engaged in the teaching of chemistry in a high school (grades 9 through 12). Nominations can be made by any individual, except a member of the award committee or a currently enrolled student of the nominee. Local Sections of the Society may nominate the recipients of section awards for high school chemistry teaching, as well.

**Nominations due December 1, 1998**

For more information and an application form, please contact Cheryl Brown at [c\\_brown@acs.org](mailto:c_brown@acs.org) or at American Chemical Society, 1155 Sixteenth St., NW; Washington, DC 20036. Tel.: 800-227-5558x6022 ◇

## Applications Invited

**Glenn E. and Barbara Hodsdon Ulliyot Scholarship**

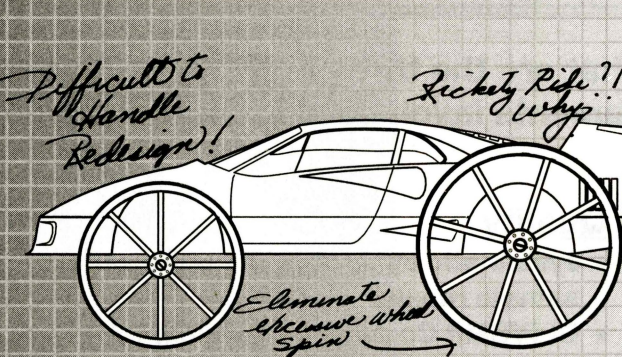
**Philadelphia—The Chemical Heritage Foundation (CHF) invites applications for the Glenn E. and Barbara Hodsdon Ulliyot Scholarship. The goal of the Scholarship is to advance public understanding of the importance of the chemical sciences to the public welfare.**

The fourth annual Ulliyot Scholarship, which will be awarded for summer 1999, offers a stipend of \$3,500 plus modest travel and research support. The scholar will spend a minimum of two months in residence at CHF, conducting research on the heritage of the chemical sciences using the resources of the CHF's Othmer Library of Chemical History in Philadelphia, other area libraries, and associated resources.

**Deadline: February 15, 1999**

**For details, contact:**

Leo Slater  
Chemical Heritage Foundation  
315 Chestnut St.  
Philadelphia, PA 19106-2702  
Phone: 215-925-2222x224  
Fax: 215-925-1954  
e-mail: [lslater@chemheritage.org](mailto:lslater@chemheritage.org) ◇



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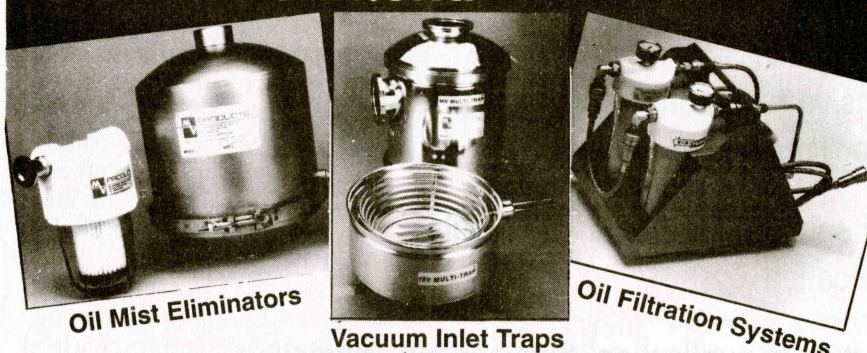
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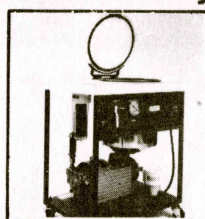
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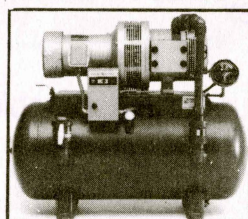


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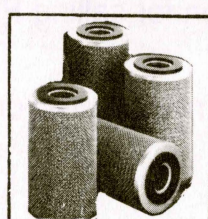
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## ACS Thanks

To the Editor:

In August the Northeastern Section hosted a most successful national meeting, attended by over 16,000 members and visitors, with a sold-out exposition of 439 booths (a new record).

- Everywhere attendees could be seen consulting The NUCLEUS for the best restaurants and for suggestions on how, what to see and do in Boston.
- The Woodward Exhibit in the Hospitality Center was of interest to many. The welcome received from the volunteers there was warm.
- On Tuesday evening, the stands at Fenway Park were full of ACS members.
- Every time you turned around, there was a student carrying a meeting room sign or offering to help put your slides in a carousel tray.
- In the Employment Clearing House, volunteers helped members search for new jobs.
- The Centennial T-shirt was seen on the trumpeter who opened the Council meeting.
- An innovation was the Section's web-site tailored to attendees at the national meeting; it was terrific!

It was an outstanding meeting, due in large part to the efforts of the members of the Northeastern Section and their families.

The staff of the Meetings, Expositions, and Divisional Activities Department wish to extend our gratitude on behalf of all of our colleagues here at ACS for your support.

Thanks —and congratulations! We would also like to thank the faculty and students of the following institutions for their support: UMass Boston, UMass Dartmouth, UMass Amherst, UMass Lowell, Boston University, Suffolk University, University of New Hampshire, Northeastern University, Wellesley College, Tufts University, and Brandeis University.

*continued on page 15*

## Council Meeting

August 26, 1998, Boston, MA

The Northeastern Section was represented by 10 Councilors and one Alternate Councilor, its full complement of 11 votes.

The Council elected 5 members of the Committee on Committees from a slate of 9 (one nominee had withdrawn). Similarly, 4 Councilors were elected to the Council Policy Committee and five to the Committee on Nominations and Elections, including one Councilor who was nominated by petition (Gordon Nelson).

President Walter, President-Elect Edel Wasserman, Past-President Paul Anderson and the Chair of the Board of Directors, Joan Shields reported on the condition of the Society. Executive Director John Crum reported on concerns of the administration of the ACS, including testing the Society's computer systems for the infamous Year 2000 problem with generally satisfactory results. A new office of Society Services has been established to consolidate the many previously separate service departments with their many separate telephone numbers which provide member services. The new number is 800-227-5558 and provides toll-free access to member services. The new ChemCenter data base, launched in the spring has been very successful and will carry on-line information about scientific meetings, and make accessible web editions of all ACS journals.

### ACS Thanks

*continued from page 14*

We could not have managed without them.

Christine Pruitt, Administrator  
Meetings, Expositions and  
Divisional Activities  
Department, American  
Chemical Society  
202-872-4397;  
Fax: 202-872-6128.◇

On recommendation of the Council Policy Committee, the Council unanimously approved a petition to amend Bylaw II concerning Corporation Associates which limits the spending of Corporation Associate dues on programs to serve the interests of industrial chemical scientists and to improve the image of chemistry and to give greater flexibility to the Board of Directors in acting on Corporation Associates which have not paid their dues.

The Committee on Nominations and Elections has proposed redistricting the six ACS Districts which are represented by the six Regional Directors on the Board of Directors in order to maintain the mandated limits on difference in membership in these Districts. Accordingly, Region I, the Region in which the Northeastern Section is located, would lose the Puerto Rico Section, but would gain the following Local Sections at the western end of the current region: Akron (OH), Erie (PA), Northeastern Ohio, Penn-Ohio Border, Wooster (OH) and Penn-York

Following the mandated "sunset-review" (every 5 years), on recommendation of the Committee on Committees, the Council unanimously approved continuation of the Committee on Chemical Safety. The Committee on Environmental Improvement is being reviewed and will be presented for a vote at the Anaheim, Cal. Spring Meeting.

The Society Committee on Budget and Finance reported that Society operations are 700 K\$ unfavorable in respect to the 1998 budget, in part due to expenses in upgrading the information systems for handling the 2000 problem. Investments, however, had shown an 8 M\$ gain.

The Council Committee on Divisional Activities reported that a List Server has been set up for the use of Divisional officers.

On recommendation of this committee, the Council voted unanimously to advance the Division of Chemical Toxicology from probationary to full status.

The Committee on Economic and

*continued on page 16*

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## Council Meeting

continued from page 15

Professional Affairs reported that the Boston Employment Clearing House had 236 employers with 1165 job openings, and 1637 candidates registered. Some 3000 interviews had been conducted.

On recommendation of the committee, the sixth edition of the Professional Employment Guidelines was approved overwhelmingly with only a small scatter of "nay" votes.

The Committee on Local Section Activities, the winners of the several Local Section Activities awards (based on their 1997 reports) – the New York Section won the Large Section Award (our category). It was announced that biographies of ACS Tour Speakers and abstracts of their presentations are now on the ACS website.

The Committee on Meetings and Expositions announced that the attendance at the Exposition of the Boston Meeting was the second largest in ACS history.

Although the committee had recommended that registration fees for the 1999 meetings be raised by \$10, the Council defeated this motion by 270 No vs. 176 Yes after a lengthy debate from the floor.

The Membership Activities Committee reported that as of August 15, 1998, 8209 new members had signed up, and the retention rate of current members has improved. The total membership at the end of 1997 was 155,399.

The Committee on Constitution and Bylaws recommended approval of the bylaws of the new Division of Chemical Toxicology. The Council approved and thus officially established this new Division.

Three petitions for amending the Constitution and Bylaws were listed "For Consideration" at this meeting and had been discussed in the several committees:

An amendment of Bylaw III to revise the charge of the Committee on Divisional Activities to include recommendations on combination or dissolu-

tion of Divisions. An amendment of Bylaw I to delete the \$10 reinstatement fee, and an amendment of Article IV and Bylaw I to establish a category of Honorary Members. The last one is to be withdrawn inasmuch as the proposed amendments were in conflict with several other provisions of the documents. The reason for such honorary status was to be able for the President, with approval of the Board of Directors, to confer such nominal status on persons, such as foreign dignitaries with whom or in whose countries the ACS has dealings.

The Chemical Abstracts Committee reported that there are now 18M substances listed in the CA Registry.

The Committee on Minority Affairs reported that of 107 past SEED summer research students, 30 have entered colleges or universities to study science.

The Committee on Publications announced that C&EN will be available on the internet for no charge for September-December 1998. Starting 1999, it will be available on a paid subscription basis.

The Younger Chemists Committee reported that at the Boston meeting workshops were held on Proposal Preparation. At the Anaheim meeting in the spring, the Committee will seek to mount a symposium on communicating scientific issues to the lay public, and is seeking co-sponsorship with a Division for such an event. ♦

## Calendar

continued from page 24

### Nov. 17

Prof. Jack Fajer (Brookhaven Natl. Lab.)  
"Conformational Control of the (Photo) Physical and Chemical Properties of Porphyrins"  
Brandeis Univ.  
Room 122, Gerstenzang, at 4 PM

Dr. Mark Marcko (Vertex Pharmaceuticals)  
"The Design of Amprenavir, a Potent Inhibitor of HIV Protease"  
Tufts Univ.  
Rm. 106, Pearson Hall, at 4:30 PM

Prof. Gordon Gribble (Dartmouth College)  
"Chlorine: Element from Hell or Gift of God?"  
UMass Boston, Harbor Campus  
Rm. 809, at 4:30 PM

## Career Services

The National Employment Clearing House (NECH) was held in Boston August 23-27 and offered an unusual opportunity to chemists seeking employment and employers seeking chemists. We have copies of over 600 job postings that were available. A number of Northeastern Section Employers were registered at the Boston meeting. We invite members of the Northeastern, Rhode Island and Central Massachusetts Sections to contact us (see below) to make an appointment to view these employment opportunities at our home.

Over 20 members of the Northeastern Section who volunteered to assist in the registration process at the NECH have our thanks, as well as those of the National ACS.

### Résumés and Employment Listings

Starting September 15, résumés of ACS members and employer listings will no longer be kept on file, but will be posted on the NESACS WEB page (<http://www.tiac.net/users/obermayr/nesacs>) for a period of up to 6 months. Résumés from Northeastern, Rhode Island and Central Massachusetts Sections and Employers Positions Available are solicited in the following format:

• Members must fill in the ACS approved form: *Local Section Career Program, Member Information Summary Form*

### Nov. 18

Prof. Peter Chen (ETH-Zentrum, Switzerland)  
"Photodissociation Dynamics of Hydrocarbon Radicals"  
Harvard Univ.  
Room MB23 (Pfizer), at 5 PM

Prof. Catherine Costello (Boston Univ. Sch. Med.)  
"New Developments in the Mass Spectrometry of Biological Molecules"  
UMass Dartmouth  
Sci. & Eng. Bldg., Rm. 305, at 4 PM

continued on page 20

## Career Services

continued from page 16

- Employers must fill in the ACS approved form: *Local Section Career Program, Employer Registration Form*
- Members and Employers must sign the 'Waiver' form.

Copies of these forms will be mailed on request by contacting Arlene Light, or Sonja Fetela in New Hampshire (see addresses below).

Completed copies of these forms should be submitted to Truman or Arlene Light and must be submitted by mail. They will be posted on the NESACS Section Web page. A supplemental one-page résumé or job description may also be submitted.

The Northeastern Section Employment Services Committee has the following aids for both employers and applicants:

### Videos

- Career Transitions: *Catalyst for Change*

- *Formula for Success: Turning Job Leads into Gold*
  - *Developing the Right Picture: Résumé Preparation*
  - *The Essence of a Winning Interview*
  - *Your Career in Chemistry: Measuring Your Skills, Weighing Your Options*
- These may be borrowed for a one-week period.

### Brochures

- *Current Trends in Chemical Technology, Business and Employment*
  - *The Interview Handbook*
  - *Tips on Résumé Preparation*
  - *Employment Guide for Foreign-Born Chemists in the United States*
  - *Employer Lists*
- These are available free of charge

Information about all of the above may be obtained by calling Truman or Arlene Light at 781-862-3048 or by e-mail to [tslight@aol.com](mailto:tslight@aol.com). ACS members in New Hampshire may contact Sonja Fetela at 603-352-1415 or by e-mail to [info@polyonics.com](mailto:info@polyonics.com) ♦

## Book Review

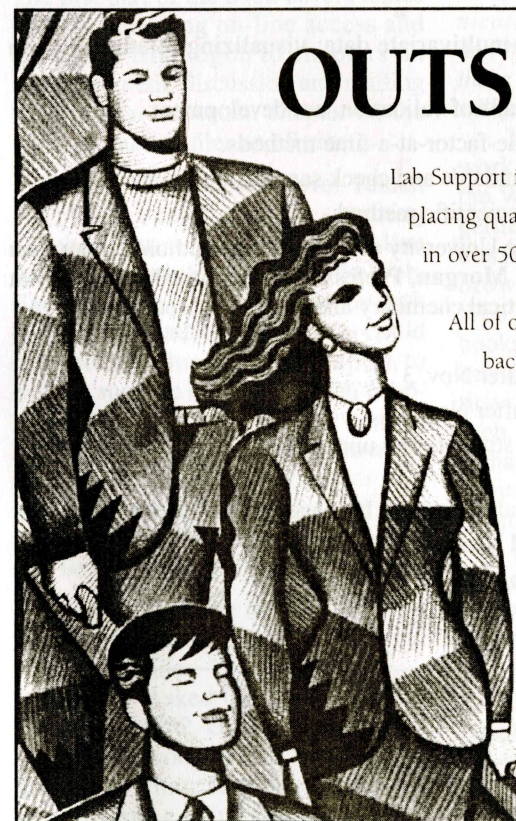
Thomas, Brian J. *The Internet for Scientists and Engineers: Online Tools and Resources - 1997-1998* ed. Copublished by SPIE (International Society for Optical Engineering), IEEE Press and ASME. Piscataway, N.J.: IEEE Press, 1997. 497 pp. ISBN 0780334329. \$34.95.

Thomas, Brian J. *The World Wide Web For Scientists and Engineers*. Copublished by SPIE, IEEE, ASME, Society of Automotive Engineers. Piscataway, N.J.: IEEE Press, 1998. 357 pp. ISBN 08194277656. \$34.95.

Steven M. Bachrach, ed. *The Internet: A Guide for Chemists*. Washington, D.C.: American Chemical Society, 1996. 344 pp. ISBN 0841232237. \$31.95.

Reviewed by Marilyn A. Grant (Senior Reference Librarian, O'Neill Library, Boston College)

continued on page 19




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A Two-Day Short Course Sponsored by the Northeastern Section, ACS, Committee on Continuing Education  
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National ACS is making top-rated ACS Short Courses available to local sections at tuition fees greatly reduced from the normal \$825. The NESACS Committee on Continuing Education is pleased to present this recently introduced course by two highly acclaimed instructors. Their ACS Short Course "Experimental Design for Productivity and Quality in R&D" has been taught to hundreds of investigators since 1982.

A minimum enrollment of ten registrants will be required for this course.

**DATES and TIME:** Thursday, Nov. 19, 1998, 8:00 a.m. - 5:00 p.m.  
and Friday, Nov. 20, 1998, 8:30 a.m. - 5:00 p.m.

**PLACE:** Snell Library, Room 90, Northeastern University, 360 Huntington Ave., Boston, MA

This course in statistics is taught by analytical chemists and not by statisticians. It is intended for analytical laboratory managers, R&D managers, manufacturing and production managers, scientists, engineers, technicians and others who need to understand traditional and modern methods of data analysis. The course assumes no prior knowledge of statistics and is aimed at both beginning and experienced workers.

#### PROGRAM AGENDA:

**Actions Based on Numbers:** Operational definitions of measurement; variation as a fact of life; analytical vs. numerative studies.

**Types of Errors:** Determinate; indeterminate; accuracy; precision.

**Propagation of Errors:** Determinate errors; indeterminate errors; significant figures; rounding; computation of rules.

**Significance Testing:** Student's *t*; Fisher's *F*; Differences between two means and between two variances; Outlier and confidence testing; prediction and tolerance intervals; measurement uncertainty vs. process uncertainty.

**Fitting Models of Data:** Simple matrix least squares; computer regression output; sums of squares and degrees of freedom tree; variance; purely experimental uncertainty; correlation coefficient; other diagnostic statistics; confidence bands; implications for calibration; standard curves; standard addition; internal standards.

**Limits of Decision, Detection, and Determination:** Sensitivity - what it is and what it isn't; limits of detection, decision, and determination.

**Pattern Recognition on Analytical Data:** Extracting information from multivariate data; visualizing relationships in complex data sets.

**Collaborative Trials and Comparison of Methods:** Youden plots; as a means of validation, not development.

**Validation Through Development of Analytical Methods:** Failure of single-factor-at-a-time methods.

**Statistics for Quality Assurance:** Simple control chart concepts; Use of standards and check samples; reference materials.

**Data Quality Objectives:** Necessity for client consultation; relationship to scientific method.

**Instructors:** Stanley N. Deming, Professor of Analytical Chemistry at the University of Houston has authored more than 90 publications in analytical chemistry and related disciplines. Stephen L. Morgan, Professor of Analytical Chemistry at the University of South Carolina, has authored over 80 publications in analytical chemistry and analytical biochemistry.

#### Pre-registration Required - Registration Fees:

ACS Members if received before Nov. 3 ..... \$275.00; after Nov. 3 ..... \$325.00  
non-ACS Members if received before Nov. 3 ..... \$375.00; after Nov. 3 ..... \$425.00

There will be a limited number of partial scholarships for graduate students and unemployed ACS Members on a space-available basis.

Parking Fee \$5.00/day

University cafeterias will be available for lunches.

For further information contact: Prof. Alfred Viola - (617) 373 2809

#### Registration form for Short Course - Statistical Analysis of Laboratory Data

Name: \_\_\_\_\_ Affiliation: \_\_\_\_\_  
Mailing \_\_\_\_\_ Telephone: \_\_\_\_\_  
Address \_\_\_\_\_

Mail with remittance to :

(Please make checks payable to NESACS)

Prof. Alfred Viola, Chair  
NESACS Committee on Cont. Ed.  
Department of Chemistry  
Northeastern University, Boston, MA 02115

## Book Review

continued from page 17

The Internet and World Wide Web have been the subject of many books and how-to guides. The three publications reviewed are designed specifically for scientists and engineers.

The Internet for Scientists and Engineers, 1997-1998 is now in its third edition. I have to commend the author for producing three editions of this book in only three years. For a potential user of the Internet, this is an indication of how quickly and how dramatically the Internet has developed in such a short time. In the Preface, Brian Thomas indicates that "the book is geared to science professionals or those interested in science who want to make use of the full features of the Internet (electronic mail, telnet, FTP and Usenet groups)". At the same time he recognizes that certain readers may wonder if it is worth the time and effort to use anything beyond e-mail. The first part of the book covers topics such as obtaining on-line access and the user's first logon to chapters on electronic mail, discussion and mailing lists, and an important chapter on the types of Internet files and formats.

Additional chapters cover Telnet, FTP, Usenet news, tools for searching (Archie, Veronica, Gopher), on-line databases and the World Wide Web. Each chapter is clearly written with enough subheadings that a user could dip into portions of the chapter to answer specific questions. Each chapter ends with a section called "Just the FAQs" which leads the reader to additional information in documents created for the Internet by users all over the world. Chapters 1-13 could actually be read by users in all disciplines.

Part II, "Science Resources on the Internet," provides lists of information in 21 disciplines. Usenet newsgroups, Frequently Asked Questions, discussion lists, FTP, Gopher and World Wide Web resources are listed for each discipline. These lists provide a wonderful starting point for new Internet

users and should also be consulted by more experienced users because there are always new sites to discover and explore in one's discipline. The only thing that could be added would be annotations for each site; however, this would have added 200-300 pages to this work. Perhaps an expanded version of this section could form the basis of a separate directory to Internet sites for science and engineering. An appendix on Personal Computer Basics, a Glossary, Bibliography, and Index complete this very useful title.

*The World Wide Web for Scientists and Engineers* provides an excellent overview of Web tools and applications, Web authoring and publishing, and searching and researching on the World Wide Web. Brian Thomas states in his preface "The Web is much more than just a collection of links and cool sites. It is a sea-change in our professional lives and endeavors, particularly for those working in science and education, for whom the Web was originally designed. The Web today represents a new way of communicating ideas, discoveries, research, and the interpersonal aspects that bind these all together. As such, the forest is still just as important as the trees."

The first four chapters of this work provide a review of the state of the World Wide Web and chapters on getting on-line, using e-mail and discussion lists. A chapter on web browsers shows how to explore the Web, customize a browser, and create bookmarks and hotlists. There are also brief discussions of helper applications, plug-ins and multimedia on the Web. The second part of this book has a chapter on web file formats for documents, images, graphics and multimedia formats, as well as two chapters on web publishing. The first of the chapters on publishing provides a basic introduction to HTML and the advanced chapter covers topics such as background colors and images, text and link colors, and gives examples of using forms, frames, and Java script. This chapter concludes with a list of resources on the Web for each of the concepts covered in the text.

Part III of this book is devoted to Searching and Researching on the Web. This single chapter discusses how robots, spiders and crawlers work, hybrid search engines, subject guides and meta-search sites. A brief explanation of how search engines rank web sites is followed by brief and basic information on search strategy. Six search engines (Alta Vista, Excite, Hot Bot, InfoSeek, Lycos, and Yahoo) are described, with more extensive sample searches given for Hot Bot and Yahoo. The chapter ends with a list of some primary search sites that the reader can try. To effectively search the Web, a user should become comfortable with several search engines and pay attention to new search features as they are added to a search engine. Search engines are quite competitive with one another; they are always adding new features or redesigning a site for better searching.

The last section of this book consists of double column lists of Web resources for 22 scientific disciplines. Chapters range in length from 3-13 pages. This more extensive listing complements the list of Web sites in *The Internet for Scientists and Engineers*. The Appendix has a Search Engine Comparison Chart, Bibliography and Glossary, and Index. These two titles by Brian Thomas are easy to read, clearly written and complement one another well.

*The Internet for Chemists* edited by Steven Bachrach has as its purpose: "to focus on the Internet resources now available for chemists." This book is written with the assumption that the reader is a novice to the Internet. Each chapter is written by one or more scientists. The contributors are from the United States, Mexico, and England and work in academic, industrial and government sites. Part One of the book consists of eight chapters called "Basic Information", Individual chapters cover the "History of the Internet:", "Electronic Mail", "The Berkeley Mail Program", "Electronic Lists", "Gopher", "The World Wide Web", "Designing an

continued on page 20

## Book Review

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Internet-Accessible Database" and "Electronic Conferencing". As with any compilation of articles, readers may choose to read certain chapters of special interest or just read straight through this section from Chapters 1-8.

The second part of this book has five chapters called "Specifically for Chemists". Individual chapters cover "Electronic Lists for Chemists", "Managing the Computational Chemistry List", "Chemistry and the Gopher", "Chemistry and the World Wide Web" and "Chemical Industry and the Internet". An appendix on Anonymous FTP, Glossary, Bibliography and Index complete the book.

Because this book is geared to chemists, most of the examples are chemical in nature. This may make the chemist who is an Internet novice feel more comfortable with the information and immediately begin to see real applications to use in practice. For example, the chapter on chemistry and the World Wide Web briefly discusses teaching applications. The chapter on the chemical industry and the Internet includes results of a survey on how Rohm and Haas researchers use the Internet and discusses issues of security and the need for a security policy in all organizations. The Internet for Chemists is not a how-to guide; rather, it provides theoretical principles and practical examples of the use of the Internet by chemists.

As a science reference librarian, I have purchased all three of these titles for the library where I work. As a person who uses the World Wide Web each work day, I bought my own copies of the two books by Brian Thomas to keep by my PC and augment my personal collection of Internet and Web books. ◇

### CHICKENS AND EGGS

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## Satellite TV Program Cancelled

The National Chemistry Week Satellite TV Seminar: How to Integrate Biochemistry into Your Chemistry Course scheduled for Monday, November 2, 1998 has been CANCELLED, as well as all subsequent seminars in the Fall schedule of the ACS office for TV Seminars.

Although this seminar had not yet been announced by the Northeastern Section, it was announced in ACSess (May '98, p.7)

The telecasts are being replaced by continuing education courses on the WEB, starting September, which will be free to users. These courses will also be available as CD ROM disks.

For information, contact Cyrelle Gerson, Media Courses Manager: (800) 227-5558x8728 or C\_gerson@acs.org, or also Prof. Ruth Tanner, Chemistry Department, U. Mass Lowell, (978)-934-3662 or ruth\_tanner@uml.edu. ◇

## Calendar

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### Nov. 19

Prof. Scott Denmark (Univ. Illinois, Urbana-Champaign)  
"Asymmetric Catalysis with Chiral Lewis Bases"  
Boston College  
Room 127, Merkert Chem. Ctr., at 4 PM

Dr. Werner Meier (Biogen Corp.)  
"N-Linked Oligosaccharides in Biopharmaceutical Development"  
Boston Glycobiology Discussion Group  
MIT Faculty Club, at 6:30 PM  
For dinner reservations, call (781) 642-0025

### Nov. 24

Prof. Daniel Kahne (Princeton Univ.)  
Title TBA  
Boston College  
Room 127, Merkert Chem. Ctr. time TBA

Prof. Harry Morrison (Purdue Univ.)  
Title TBA  
Brandeis Univ.  
Room 122, Gerstenzang, at 4 PM

Prof. Robert Griffin (Mass. Inst. Tech.)  
"Solid State NMR Studies of Energy Transduction in Bacteriorhodopsin"  
Tufts Univ.  
Rm. 106, Pearson Hall, at 4:30 PM ◇

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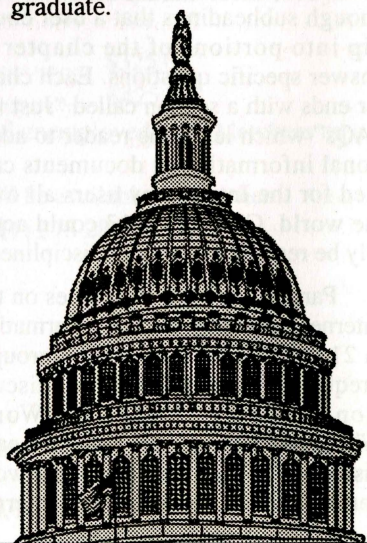
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- Preclinical and clinical bioanalysis
- Electrochemical methods
- Quality Control / Assay validation
- Spectroscopy and spectroscopic methods
- Detection techniques
- Combinatorial/molecular diversity issues

Invited Program: (titles abbreviated)

- M. Cronin – Applying DNA array analysis
- G. Miller – Assessing the strategic importance of Pharmacogenomics
- S. Spielberg – to be announced
- J. MacClennan – Phage display
- D. Bugay — Physical characterization of pharmaceutical solids
- I. Wilson – LC-MS-NMR in drug metabolism
- J. Shockcor – LC-NMR-MS in drug discovery
- K. Shea – *de novo* synthesis of small molecule receptor sites
- K. -S. Boos – Molecular imprinted phases
- B. Sellergrén – Molecular imprinted polymers

- D. Armstrong – Chiral recognition
- C. Bertucci – Circular dichroism, tool for ligand binding
- D. Gregson – Time-resolved spectroscopy and biomolecular interactions
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Prof. Andrew Hamilton (Yale Univ.)  
"The Design of Artificial Receptors for Protein Surface Recognition"  
Tufts Univ.  
Rm. 106, Pearson Hall, at 4:30 PM

### Oct. 21

Prof. Armin de Meijere (Univ. Göttingen, Germany)  
"New Ventures into Palladium-Catalyzed and Titanium-Mediated Synthetically Useful Reactions"  
Boston College  
Room 127, Merkert Chem. Ctr., time TBA

Prof. Don Tilley (Univ. CA, Berkeley)  
"Migratory Rearrangements in Transition-Metal-Silicon Compounds: Silylene Complexes and Implications for Catalysis"  
Harvard Univ.  
Room MB23 (Pfizer), at 5 PM

Prof. Elena Rybak-Akimova (Tufts Univ.)  
"Transition Metal Complexes as Platforms for Molecular Tweezers"  
UMass Dartmouth  
Sci. & Eng. Bldg., Rm. 305, at 4 PM

### Oct. 22

Prof. Jiri Jonas (Univ. Illinois, Urbana-Champaign)  
"NMR and Raman Studies of the Dynamics of Liquids Confined to Nanoporous Glasses"  
Boston College  
Room 127, Merkert Chem. Ctr., at 4 PM

Prof. Armin de Meijere (Univ. Göttingen, Germany)  
Title TBA  
Mass. Inst. of Technology  
Room 6-120, at 4 PM

### Oct. 23

Dr. Elizabeth Higgins (Genzyme Corp.)  
"Monitoring the Consistency of Glycosylation of Therapeutic Glycoproteins"  
Boston Glycobiology Discussion Group  
MIT Faculty Club, at 6:30 PM  
For dinner reservations, call (781) 642-0025

Prof. Roma Tauler (Univ. Barcelona)  
"Multivariate Resolution in Chemistry"  
Tufts Univ.  
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Prof. Geoffrey Davies (Northeastern Univ.)  
"Adventures with Humic Acids"  
UMass Boston, Harbor Campus  
Rm. 809, at 4:30 PM

### Oct. 28

Prof. Nelly Rodriguez (Northeastern Univ.)  
"Synthesis of High-Capacity Hydrogen Storage Materials"  
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Sci. & Eng. Bldg., Rm. 305, at 4 PM

### Oct. 29

Prof. Michel Orrit (Univ. de Bordeaux, France)  
"Single Molecule Methods in Physics, Chemistry and Biology"  
Harvard University  
Room MB23 (Pfizer), at 5 PM

Prof. John Gerlt (Univ. Illinois)  
Title TBA  
Mass. Inst. of Technology  
Room 6-120, at 4 PM

Dr. Paul Danis (PerSeptive BioSystems)  
"Applications of MALDI-TOF in Polymer Chemistry"  
Northeastern Univ.  
129 Hurtig Bldg., at 4 PM

### Oct. 30

Madeleine Jacobs (Chem. & Eng. News)  
"The Challenges of Editing the Newsmagazine of the Chemical World"  
Mass. Inst. of Technology  
Room 4-370, at 12:30 PM

### Nov. 3

Prof. David Hanson (SUNY Stony Brook)  
"Chemistry with Soft Rays from Synchrotron Sources"  
Brandeis Univ.  
Room 122, Gerstenzang, at 4 PM

Dr. Robert Parson (Univ. Colorado)  
"The X2 Files: Photodissociation of Molecular Ions in Clusters"  
Mass. Inst. of Technology  
Room 2-105, at 4 PM

Prof. James Canary (New York Univ.)  
"Chiral Switches, Sensors and Engines"  
Northeastern Univ.  
129 Hurtig Bldg., at 4 PM

Dr. Michael Gait (MRC Lab., Cambridge UK)

"Chemical Approaches to RNA Structure and Function"  
Tufts Univ.

Rm. 106, Pearson Hall, at 4:30 PM

### Nov. 4

Dr. A. T. Chen (Solutia, Inc.)  
"Development of Pressure-Sensitive Adhesives"  
UMass Dartmouth  
Sci. & Eng. Bldg., Rm. 305, at 4 PM

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Prof. Dave Collum (Cornell Univ.)  
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Prof. Raymond P. Mariella Jr. (Lawrence Livermore Natl. Lab.)  
"Microtechnology Applications for Instrumentation"  
Mass. Inst. of Technology  
Room 4-370, at 5 PM

Prof. M. Gunner (City College, New York)  
"Electrostatics in Proteins"  
Northeastern Univ.  
129 Hurtig Bldg., at 4 PM

### Nov. 10

Prof. Jacqueline Barton (Cal. Inst. Tech.)  
"Long Range Electron Transfer: A Probe of DNA Structure and Dynamics"  
Boston College  
Room 127, Merkert Chem. Ctr., at 4 PM

Dr. Elaine Yamaguchi (Chevron Res. & Tech. Corp.)  
"Chemistry of Zinc Dialkyldithiophosphates"  
Brandeis Univ.  
Room 122, Gerstenzang, at 4 PM

Dr. Bruce Kay (Pacific Northwest Natl. Lab.)  
"Molecular Beam Studies of Kinetic Processes in Nanoscale Films of Amorphous Ice"  
Tufts Univ.  
Rm. 106, Pearson Hall, at 4:30 PM

### Nov. 11

Prof. Jacqueline Barton (Cal. Inst. Tech.)  
"DNA-Mediated Electron Transfer: Chemistry at a Distance"  
Boston College  
Room 127, Merkert Chem. Ctr. at 8 PM

### Nov. 12

Prof. Jacqueline Barton (Cal. Inst. Tech.)  
"DNA Recognition and Reactions by Transition Metal Complexes"  
Boston College  
Room 127, Merkert Chem. Ctr. at 4 PM

Prof. Karen Anderson (Yale Univ.)  
Title TBA  
Mass. Inst. of Technology  
Room 6-120, at 3 PM

Prof. P. Reed Larsen (Harvard Med. Sch.)  
"Testing for Free Thyroxine"  
NEAACC Educational Program  
DoubleTree Guest Suites Hotel, Waltham, at 6:00PM  
RSVP Dr. David Drum (617-732-6987, page 11161  
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### Nov. 16-17 & 19

Prof. Edward Solomon (Stanford Univ.)  
A. D. Little Lecture in Inorganic Chemistry  
Mass. Inst. of Technology  
Room 6-120, at 4 PM

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