



The Bulletin
of the
Virginia Section
AMERICAN CHEMICAL SOCIETY

APRIL MEETING NOTICE

University of Virginia
Charlottesville, Virginia

Friday, April 20, 2012

POSTER SESSION: 6:00 - 7:00 p.m.
(*STUDENT RESEARCH*) Lobby
Chemistry Building

DINNER: 6:00 - 7:00 p.m.
Lobby
Chemistry Building

PROGRAM: 7:00 p.m.
Room 304
Chemistry Building

MENU: Pizza (many varieties), Soft Drinks

DINNER RESERVATIONS: Please make reservations by calling Cindy Knight at **(434) 924-7995** or e-mail csk3a@virginia.edu by **NOON** on Wednesday, April 18.

PRICE: \$8.00 - members, guests, college students; \$4.00 - high school students

HOST: Dr. James Demas - (434) 924-3343, demas@virginia.edu

SPEAKER: **Dr. Anne De Piante Henriksen, James Madison University**

TOPIC: **"Is There Any Chemistry Between You and the Business World?"**

APRIL 2012

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reservations meeting

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29 30

Dr. Anne De Piante Henriksen

Anne De Piante Henriksen obtained a BA in chemistry from the University of North Carolina at Charlotte, a PhD in chemical physics from the University of Virginia under Dr. Frederick S. Richardson, and an MBA in management science from the University of New Mexico. The title of her dissertation was Optical spectroscopy and crystal field analysis of trivalent lanthanide ions in transparent crystal hosts. In 1986, Dr. Henriksen became a Director-Funded post doctoral fellow in the laser sciences group at the Los Alamos National Laboratory, and after that a technical staff member in the budget and finance group, the environmental technology analysis group, and the simulation modeling group. From 1996-1997 Dr. Henriksen was a visiting professor in the Anderson School of Management, where she



developed and taught graduate-level courses in management of technology. In 1997, she was hired by the Department of Integrated Science and Technology (ISAT) at James Madison University, which is an ABET-accredited applied science program. Dr. Henriksen specializes in the design and development of innovative courses in applied math and science focusing on real-world applications. She teaches calculus, physics, computer simulation modeling and science general education, and has also taught statistics and management science in the College of Business. Dr. Henriksen is currently expanding her research and teaching interests to the fields of molecular neuropharmacology and neuroendocrinology and has just completed a sabbatical getting immersed in these areas.

“Is There Any Chemistry Between You and the Business World?”

Many students obtain degrees in chemistry with the impression that benchwork or advanced degrees are their only career options. Undergraduate education in chemistry prepares students for the job market in a multitude of ways, and since most students have never held a position in the business world, they may be unaware of how the skills and training they have acquired will be of value to potential employers. In addition, students are often unaware of the many alternative career paths that are open to them with a degree in chemistry that do not involve benchwork. This talk will describe how students can present the skills they have obtained in their undergraduate chemistry degree to a potential employer. It will also describe what other careers a chemistry degree prepares students to undertake, and what additional preparation a student would need in order to embark on one of these alternative career paths.

DIRECTIONS

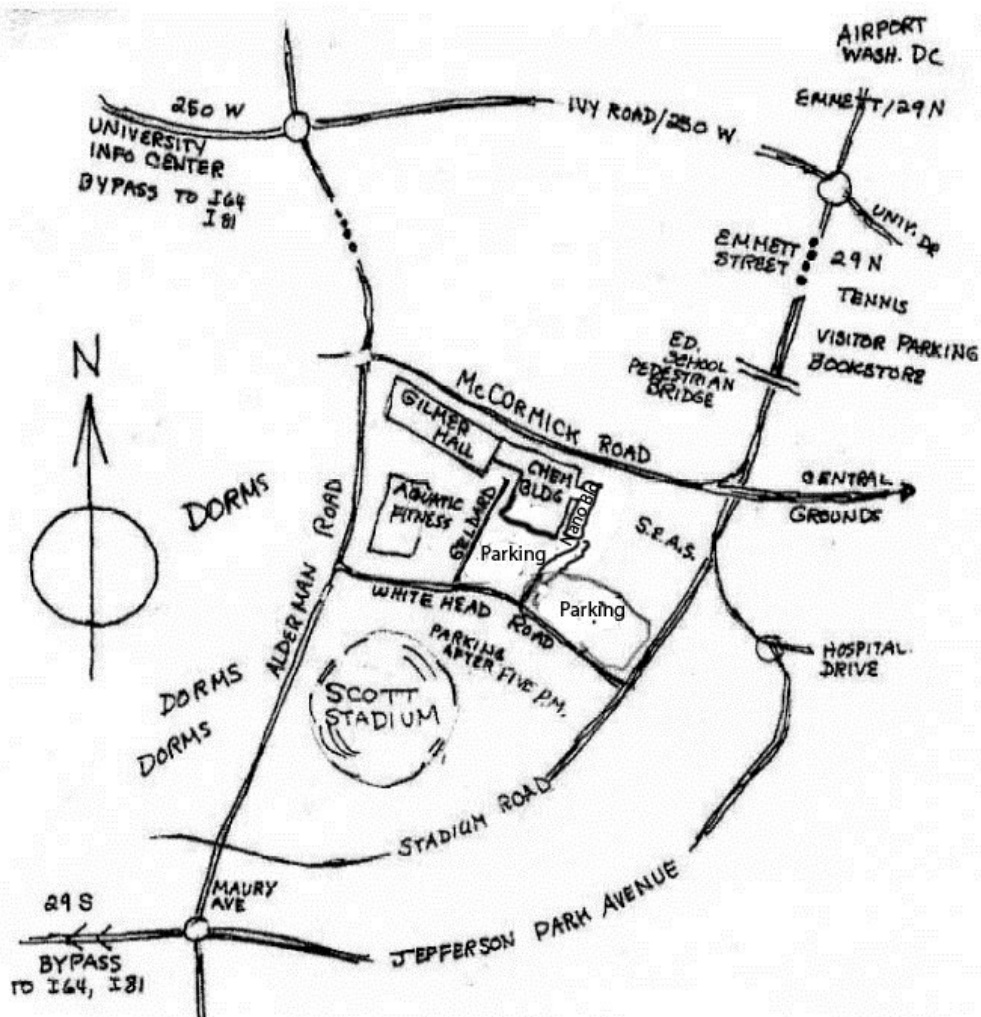
From 29N. Come straight into town past the Cavalier Inn (on your right), pass under two overhead bridges, and then bear right immediately afterwards onto Stadium Rd. Turn right at the stop sign at the top of the hill onto Whitehead Road. Parking is on the right and left.

From I-64. Turn north on 29 at Exit 118. Immediately turn right at the Charlottesville/29 Business off ramp. Turn right to go into town, then turn left at the second light (filling station on your left). Turn right immediately after the stadium onto Whitehead Road. This brings you to the back or new wing of the chemistry building. Parking is on the right and left. Do not park in the athletic center spots.

If you miss the first off ramp after I-64, turn right at the next exit (UVA information), proceed into town, turn right at the second light (Alderman Rd.), go through the first light, then make a left at Whitehead Road.

Until 5:00 p.m., all parking around the Chemistry Building is restricted and you will be ticketed. Please time your arrival so that you park after 5:00. It is most convenient to come around the new Nanotech building on the east side. **On-line map at <http://chem.virginia.edu/contact-us/maps-directions-to-uva-chemistry/>.**

MAP



***** VIRGINIA SECTION NEWS *******FUTURE MEETINGS****EXECUTIVE COMMITTEE MEETING**

Friday, May 18 - 6:30 p.m.
Downtown Campus
J. Sargeant Reynolds Community College
Richmond, Virginia

WCC LUNCHEON

Friday, June 8 - 11:30 a.m.
Mekong Restaurant
6004 W. Broad Street
Richmond, Virginia

VIRGINIA ACADEMY OF SCIENCE MEETING

May 23-25
Norfolk State University
Norfolk, Virginia

SUMMER SOCIAL (TENTATIVE)

July 21 or 22?
Richmond Flying Squirrels Game?
(see article on page 5)

POSTER SESSION

The Virginia Section will hold its annual poster session at the April 20 meeting at the University of Virginia in Charlottesville. The emphasis is on student research, especially work done by undergraduates. This is an excellent informal, low-stress environment for students to make research presentations. If you have a student who wishes to present a poster, please contact Cindy Knight at (434) 924-7995; csk3a@virginia.edu. More information can be found on this website: <http://chem.virginia.edu/undergraduate-studies/undergraduate-research/2012-american-chemical-society-poster-session/>. The deadline for registering a poster is **April 13**. We invite everyone to come early for the UVA meeting and to support these young researchers. Outstanding college and university chemistry majors will be recognized at this meeting.

**VIRGINIA ACADEMY OF SCIENCE
ANNUAL MEETING**

Norfolk State University
May 23-25, 2012



The 90th Annual meeting of the Academy will be held at Norfolk State University in Norfolk on May 23-25. Oral presentations will be scheduled on May 24. There will be a Poster Session for all Sections that will be set up and stay up all day Thursday, May 24. Information on the Chemistry Program can be obtained from Alan Rowe, Chemistry Section Secretary, at harowe@nsu.edu, (757) 823-2531 or from the Chair of the Chemistry Section, Dr. Thomas DeVore, James Madison University, Dept. of Chemistry & Biochemistry, MSC 4501, Harrisonburg, VA 22807, devoretc@jmu.edu, (540) 568-6672. Full information about the annual meeting and about Academy membership can be found on the Academy's website: www.vacadsci.org.

EXECUTIVE COMMITTEE MEETING

The second Executive Committee Meeting of the year will be held at J. Sargeant Reynolds Community College, Downtown Campus, 700 East Jackson Street in Richmond, at 6:30 p.m. on **Friday, May 18**. Directions and the meeting agenda can be found on the Section website - <http://www.virginia.sites.acs.org/>. All members of the section are invited to attend. For questions regarding the agenda and meeting, contact the Chair of the Virginia Section, Dr. Karen Carter, at (804) 521-7369, kcarter@aibiotech.com.

WCC LUNCHEON MEETING

WCC Networking Lunch – Friday, June 8, 2012

The Women Chemists Committee of the Virginia Section will be holding a networking lunch on Friday, June 8, 2012 at 11:30 a.m. at the Mekong Restaurant, 6004 W. Broad Street, Richmond, Virginia. The Mekong (<http://www.mekongva.com/>) is a 4-star restaurant ranked among the best in Richmond. There is ample parking and easy access from I-64 and I-95. For more information, visit the WCC webpage at <http://membership.acs.org/V/VA/WCC/> or contact Dr. Sheryl Baldwin at sherylbaldwin@verizon.net.

AWARDS TO COLLEGE SENIORS

Outstanding senior chemistry majors from colleges and universities in the Virginia Section will be honored at the April 20 Section meeting in Charlottesville. Each school has been asked to select a student to receive the Virginia Section award for undergraduate achievement. The awardees will be the guests of the Section at the meeting on April 20 and each will receive a free membership in the ACS, a *Merck Index*, and a certificate of recognition. Chemistry departments must inform Chair Karen Carter of their nominees and an ACS membership application form must be completed by each nominee. If you have not submitted the name of your outstanding senior chemistry student, please contact Dr. Karen Carter at (804) 521-7369, kcarter@aibiotech.com.

RICHMOND FLYING SQUIRRELS GAME

Chair-Elect Joe Crockett is organizing a Virginia Section night at the ball game! The Richmond Flying Squirrels play in the Eastern League (class AA) and are a farm team for the San Francisco Giants. Section members would go as a group and sit together for the game. Possible dates are Saturday, July 21 (6:35 p.m. start) or Sunday, July 22 (5:05 p.m. start) when the Flying Squirrels take on the Akron Aeros. If you like the idea of ACS at the Squirrels, or if you have a preferred date, contact Joe Crockett at (540) 828-5431; jcrocket@bridgewater.edu. Watch your e-mail or check the Virginia Section website, <http://www.virginia.sites.acs.org/> in late June or early July for details about chemistry at the old ball park!

COME EARLY ON APRIL 20 TO SEE THE UNDERGRADUATE RESEARCH POSTERS

JUDGES FOR THE VIRGINIA JUNIOR ACADEMY OF SCIENCE

Judges and meeting chairs are needed for the 71st annual meeting of the Virginia Junior Academy of Science (VJAS), to be held at the Norfolk State University on May 22-24, 2012. About 750 students from grades seven through twelve will present papers and report on original research work. If you would like to contribute to this celebration of science by young persons, please contact Susan Booth, VJAS Director, at susan.science@gmail.com or at (757) 897-3104. Judges are needed in Agriculture & Animal Science, Animal Behavior, Botany, Chemistry, Computer Science, Consumer Science, Earth & Space Science, Engineering, Environmental Science, Genetics & Cellular Biology, Mathematics, Medicine & Health, Microbiology, Physical Science, Physics, Psychology, Statistics, and Zoology. General information on the VJAS meeting can be found at the Virginia Junior Academy of Science website: www.vjas.org.

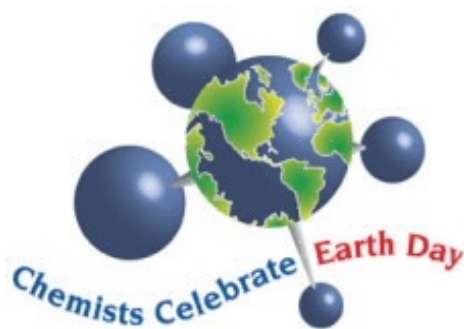
CHEMISTS CELEBRATE EARTH DAY (CCED)

The ACS will be participating in Earth Day through the Chemists Celebrate Earth Day (CCED) program. The theme this year is "Rethinking, Recycling — It's Easy to Be Green". The Virginia Section will participate with a celebration on Saturday, April 21 at the Midlothian campus of John Tyler Community College (800 Charter Colony Parkway, Midlothian). The CCED at John Tyler will be part of their Fool for Art and the Environment program.

Dr. Kristine Smetana is coordinating the CCED activities. Contact her for more information and to offer your support and assistance:

kmetana@jtcc.edu. Volunteers are needed on April 21 to help out from 10 a.m. until 4 p.m.

General information on CCED can be found at www.acs.org/earthday and on the JTCC Fool for Art event at www.jtcc.edu/foolforart/.



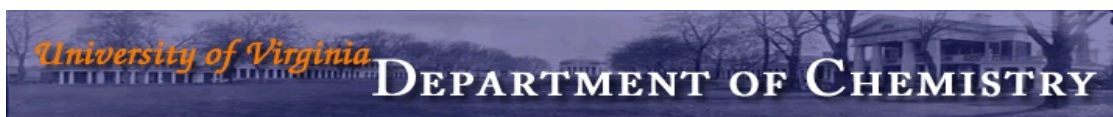
WORDS OF WISDOM FOR APRIL: **"A Life Of Ease
Is A Difficult Pursuit"**

REPORT ON THE MARCH MEETING OF THE VIRGINIA SECTION

On March 16, about 60 persons attended the W. Allan Powell Lectureship at the University of Richmond. Dr. Raymond Dominey introduced the speaker, Dr. Robert Griffin, Director of the Francis Bitter Magnet Laboratory and Professor of Chemistry at Massachusetts Institute of Technology. Dr. Griffin spoke on recent advances in magnetic resonance studies of solids. His topic was "High Frequency Dynamic Nuclear Polarization—Why Two Electrons Are Better Than One." Dr. Karen Carter, Chair of the Virginia Section, presented Dr. Griffin with a Jefferson Cup, the traditional recognition for persons who speak at Section meetings.



Prior to the talk by Dr. Griffin, a delicious dinner was served in the Heilman Dining Center. The Powell Lectureship is an annual event that honors Dr. W. Alan Powell, who served as chair of the Department of Chemistry from 1959 through 1982. Dr. Powell passed away on December 21, 2010. The Virginia Section thanks the University of Richmond and the Chemistry Department for their assistance in organizing this meeting and for subsidizing a portion of the meal expenses.



CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA

April 2 - **Professor Laurence Hurley**, University of Arizona, "Could DNA Function as a Natural Molecular Switch in Cells?" (**Hecht Lecture**) [4 p.m. in room 151, Gilmer Hall]

April 6 - **Dr. Jennifer Lee**, National Institutes of Health/National Heart, Lung, and Blood Institute, "Probing the α -Synuclein-Membrane Interface by Photons and Neutrons"

April 20 - **Professor Tamar Seideman**, Northwestern University

Chemistry colloquia are held at 4:00 p.m. in Room 304 of the Chemistry Building. The complete colloquium schedule is on-line at <http://chem.virginia.edu/events-seminars>.

SEMINARS AT VIRGINIA COMMONWEALTH UNIVERSITY

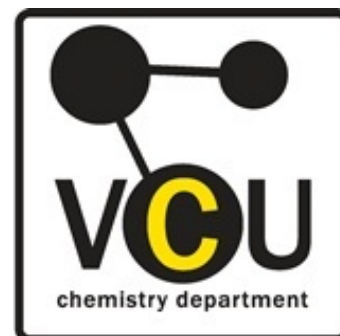
April 12 - **Dr. Gavin Williams**, North Carolina State University

April 17 - **Dr. Amar Natarajan**, University of Nebraska

April 19 - **Dr. Raymond Schaak**, Pennsylvania State University

May 2 - **Dr. Joff Silberg**, Rice University

The seminars are held at 3:30 p.m. in the Kapp Lecture Hall, Room 1024, in the Physical Science Wing of Oliver Hall, 1001 West Main Street in Richmond. For more information, call (804) 828-1298.



CHEMISTRY AT THE UNIVERSITY OF VIRGINIA

The University of Virginia Department of Chemistry is of medium size, combining outstanding physical facilities with a close-knit community of scholars. With a faculty size of 25, a graduate student body of about 95, and about 30 research associates, a stimulating atmosphere strongly encouraging interactive association has been created. Faculty research areas span a wide range offering a varied program of courses and research problems. Our 25 faculty members include professors who are nationally and internationally recognized in their fields. The list of recent honors received by faculty members includes the Distinguished Achievement Award in Proteomics from the Human Proteome Organization, the American Chemical Society's Award for Creative Work in Synthetic Organic Chemistry; Dreyfus Teacher-Scholar Awards for excellence in both teaching and research; Virginia Scientist of the Year awards, a Sloan Foundation Award, Alexander von Humboldt Research Prizes, an Analytical Chemistry Award in Chemical Instrumentation, a Presidential Early Career Award for Scientists and Engineers, a Coblentz Award, and a MacArthur Genius Award. Recent graduate student national fellowship awards include the Cognis Corporation Research Fellowship in Colloid and Surface Chemistry, the ACS Division of Medicinal Chemistry Predoctoral Fellowship Award, The Lilly Foundation Graduate Fellowship, The Science Application International Corporation Award and the Achievement Reward for College Scientists.

The goal of graduate study in chemistry is to develop outstanding young scientists able to make significant contributions in their chosen fields. A graduate student can expect to have considerable input in both the design of his or her own degree program as well as in matters pertaining to the operation of the Department as a whole. Emphasis is placed on research that contributes to our fundamental body of knowledge. Also important is the exceptional opportunity to interact not only with fellow graduate students, research associates and faculty, but also with outstanding scientists from all parts of the country and world. This participation in the forefront of scientific discovery prepares the student for the role of independent contributor to the scientific community.

Teaching and research in the Department of Chemistry have been considerably strengthened in recent years by a number of interdisciplinary centers and programs including Molecular Biophysics, Structural Genomics, Chemical Physics, Membrane Bound Proteins, Microfluidics, Biomedical Engineering, Neurosciences and Chemistry of the Universe. These programs, along with ongoing research in analytical methods, synthetic inorganic and organic chemistry, spectroscopy and other areas of physical chemistry, provide the student with a



choice of strong research areas over a broad range of the chemical sciences. The faculty attracts more than \$11 million yearly in outside funding to support these programs, an indicator of the vigor of research being carried out in the Department.

The graduate program is further supported by an extensive library system. The Barksdale Chemistry Library, established by private gifts provides fundamental references and resources. Most major journals and data bases are available on line. Graduate students are entitled to keys to the building and to the library for research and reading. Alderman Library has more than 1.6 million books as well as extensive collections of manuscripts, maps, prints, and microfilms. The Science and Engineering Library, the large library of the Medical School, and the Physics Library contain numerous additional books and journals in chemistry and allied fields.

ACS CHEMLUMINARY AWARDS

For the past thirteen years, the American Chemical Society has been presenting a series of **ChemLuminary Awards** to individuals, divisions, local sections, and regional meetings. Some of the awards to local sections are placed in different categories based on the size of the section. In 2011, the Virginia Section was nominated for four awards. These included the **Outstanding Local Section Career Program Award** (presented by the ACS Committee on Economic and Professional Affairs) in the small to medium large size category; the **Outstanding Kids & Chemistry Award** (presented by the Society Committee on Education); the **Best Student Chapter Event** (presented by the Committee on Community Activities); the **Most Innovative New Activity or Program in a Local Section** (presented by the Committee on Local Section Activities).



The Virginia Section was presented the ChemLuminary Award for an Outstanding Local Section Career Program in the small to medium large size category (fewer than 1600 members in the section). This award recognized the success of a chemistry career discussion panel sponsored by the Women Chemists Committee. Six chemists with varied backgrounds shared their personal experiences with some 30 participants in the forum.

The Virginia Section has received several other ChemLuminary Awards in past years. In 2009, we received the Chemists with Disabilities Inclusion Award and in 2008 a ChemLuminary for Creative and Innovative Use of the Chemists Celebrate Earth Day Theme. The Section received an award for community involvement in its CCED program in 2007. Prior to the ChemLuminary Awards, the ACS presented Phoenix Awards. In 1992 and again in 1993, the Virginia Section received Phoenix Awards for its National Chemistry Week activities. The Section was recognized as an outstanding section in 1989 and 1990 and received Hospitality Awards in 2002 and 2008.

ACS HIGH SCHOOL CHEMISTRY CLUBS

The ACS High School Chemistry Club Program provides fun, authentic, and hands-on opportunities for students to:

- experience chemistry beyond what is taught in the classroom;
- learn about post-secondary and career opportunities in chemistry; and
- get involved in community-building and service.



There are more than 220 clubs throughout the United States and Puerto Rico. Students plan and enjoy experiences such as science shows for local elementary schools, field trips to chemical laboratories, fundraisers, and National Chemistry Week activities. The ACS provides an information handbook, quarterly resource packets, monthly Web updates, and other items. Faculty sponsors can participate in the ACS High School Chemistry Clubs Online Network. Find out more about the program at www.acs.org/chemclub, or contact the ACS Education Division at (202) 872-6383 or by e-mail to hschemclubs@acs.org.

NOMINATIONS FOR 2013 SECTION OFFICERS

The Nominations Committee of the Virginia Section is accepting nominations for 2013 officers. Positions include Chair-Elect, Vice Chair, Secretary, Treasurer, Councilor, Alternate Councilor, and Trustee. Duties of each of these can be found in the job manual which is posted on the Section website: <http://virginia.sites.acs.org/aboutUs/jobmanual.htm>. Any member of the Section who is in good standing may be nominated, including regular student members. Self-nominations are also accepted. For more information, contact the chair of the Nominations Committee, Stephanie Mabry at 804-788-5280 or stephanie.mabry@aftonchemical.com

CAN YOU IDENTIFY THIS PLACE?



The photo is recent. The building was constructed prior to 1958 for scientific research. On May 10, 1958, the Virginia Academy of Science presented its Distinguished Service award to the laboratory that was housed in the building. Many staff members at the laboratory were active in both the Virginia Academy of Science and the American Chemical Society. These included H. Rupert Hanmer, Edward S. Harlow, Randolph N. Gladding, and Richard M. Irby, Jr. The building is now used as a field operations and maintenance facility.

The “mystery person” in the February issue was Mr. Hiram Rupert Hanmer, General Committee Chair for the 1959 Southeastern Regional ACS Meeting that was held in Richmond on Nov. 4-7 of that year. The meeting included symposia on Textile Fibers, Physical Organic Chemistry, Corrosion of Iron and Tin, and Drug Metabolism. The “Ladies Program” included a Fashion Show and Bruncheon at the Richmond Room in Thalhimers’ Department Store (\$1.25), Dinner and the play “Guys and Dolls” at the Renaissance Theatre (\$5.50), a tour of the Liggett and Myers Cigarette Factory, a tour of the Philip Morris McComas Research Center, a banquet in the Virginia Room of the Hotel John Marshall (\$4.50), a guided tour of Colonial Williamsburg, and “shopping in exciting downtown Richmond.”



QUESTIONS FROM THE PAST

This question was asked in the March Bulletin: Although the Virginia Section had not met at Virginia State University since 1993, the Section did hold a meeting in Petersburg between 1993 and 2012.

Where and when was that meeting held? On December 5, 2003, the Section met at the Appomattox Regional Governors School in Petersburg. The building was built in 1917 as Petersburg High School. The speaker was Dr. James P. Wightman, Professor Emeritus at Virginia Tech, who spoke on “Oil Films on Water Surfaces: A Study of Science and Technology, History and Ethics.”

Dr. Wightman graduated from Petersburg High School in 1951, when it was housed in the building in which the 2003 meeting was held. Leonard Klein received the Distinguished High School Teacher Award and the Distinguished Middle School Science Teacher Award was presented to Robert Pennington. Dr. Scott Weber of the Governors School hosted the meeting.

A new question: On November 6, 1958, four members of the Virginia Section presented this paper in the Organic Chemistry program at the Southeastern Regional ACS Meeting: "1,4-Additions of Phenylmagnesium Bromide to the Dibenzoylstyrenes. Some New Furan – *cis*-Unsaturated 1,4-Diketone Relationships." All four of the authors were associated with the University of Virginia and two of them are still active in the Virginia Section and hold leadership positions. **Who were the authors of this paper on organic chemistry?**

NOMINATIONS FOR AWARDS

The Virginia Section is soliciting nominations for these awards: Distinguished Service Award, Outstanding High School Chemistry Teacher Award, Outstanding Middle School Science Teacher Award, Outstanding Elementary School Science Teacher Award, Outstanding Industrial Innovator Award. Names of candidates should be forwarded to Yezdi Pithawalla or Sheryl Baldwin, Chairs of the Awards Committee: Sheryl Baldwin, (804) 353-5805, sherylbaldwin@verizon.net; Yezdi Pithawalla, (804) 274-4587, yezdi.b.pithawalla@altria.com.

ACS WEBINAR EVENTS

ACS Webinars is a weekly online event serving to connect ACS members and other scientific professionals with subject matter experts and global thought leaders in chemical sciences, management, and business. Webinars are free to ACS members. The live webinars are held on Tuesdays and Thursdays from 2:00 to 3:00 p.m. E.T. Recordings of past seminars are available online. The schedule of upcoming events can be found at <http://acswebinars.org/>.

April webinars:

April 5 - Heidi Friedman and Chris Palatucci, "Jobs in Startups—Differences and Similarities to 'Real' Companies"

April 12 - Douglas Tobias, John Hemminger, and John Sarrao, "DoE Quantum to the Continuum: Opportunities for Mesoscale Science"

April 19 - Sara Risch, "The Chemistry Magic Behind Popcorn"

April 26 - Martin Warren, "The Madness of King George"

For general information on the ACS webinar program, contact Tanya Fogg, ACS Department of Member Communities, (202) 872-6191; t_fogg@acs.org.

ACS HEROES OF CHEMISTRY NOMINATIONS

Since 1996, the ACS Heroes of Chemistry program has recognized chemical scientists whose work in various fields of chemistry and chemical engineering has led to the successful innovation and development of commercial products based on chemistry. Heroes of Chemistry are nominated by their own companies to recognize their talent, creativity, and innovation. Nominations must be received by April 20, 2012. More information and nomination forms can be found at www.acs.org/industry. Click on "industry awards."



THE BULLETIN

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