



The Bulletin
of the
Virginia Section
AMERICAN CHEMICAL SOCIETY

MARCH MEETING NOTICE

JAMES MADISON UNIVERSITY
Harrisonburg, Virginia

Friday, March 26, 2010

SOCIAL HOUR: **6:00 p.m.**
Montpelier Room
East Campus Dining Hall
Carrier Drive at
University Boulevard

DINNER: **6:30 p.m.**
Montpelier Room
East Campus Dining Hall

PROGRAM: **7:30 p.m.**
Ntelos Room
ISAT/CS Building, Room 0259

MENU: Grilled Chicken Sorrento, Roasted Vegetable Ziti, Italian-style Green Beans, Oven Roasted Carrots, Italian Salad, Bread, Tiramisu Parfait

PRICE: Members/Guests - \$18.00; Students - \$9.00; High School Teachers/
Spouses - \$9.00; Retired ACS Members/Spouses, Retired Teachers/
Spouses - \$13.00

DINNER: Please make reservations for the dinner by **NOON on Tuesday, March 23**
by calling (540) 568-3460 or by e-mail to reisneba @ jmu.edu

Please honor your dinner reservations!

HOST: Dr. Barbara A. Reisner - (540) 568-3460; reisneba @ jmu.edu

SPEAKER: **Dr. Daniel Rabinovich, UNC at Charlotte**

TOPIC: **“Chemical Philately and Education”**

MARCH 2010

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28	29	30	31			

Dr. Daniel Rabinovich

Dr. Rabinovich was born and raised in Lima, Peru. He obtained his undergraduate (B.S.) degree from the Catholic University in Lima and a Ph.D. in inorganic chemistry from Columbia University in 1994. After postdoctoral work at Los Alamos National Laboratory in New Mexico, he joined the Department of Chemistry at The University of North Carolina at Charlotte, where he is now a Professor of Chemistry. His research interests are in synthetic and structural inorganic, bioinorganic, and organometallic chemistry, including the coordination chemistry of multidentate sulfur-donor ligands and the synthesis of model compounds for metalloenzymes, as documented in some 60 peer-reviewed publications. He is also the Editor of *Philatelia Chimica et Physica*, a quarterly publication dedicated to the study of postage stamps related to chemistry and physics, and is currently serving as a Program Director in the Division of Chemistry at the National Science Foundation.



“Chemical Philately and Education”

Postage stamps are an inexpensive and effective way of communicating ideas and are often issued by governments or postal authorities to commemorate events and educate the general public on a variety of topics, ranging from history and geography to art and literature. A number of stamps have also been issued to celebrate scientific discoveries or to honor well-known scientists and can be used as simple yet powerful teaching tools in the classroom or to illustrate technical presentations. This presentation will present an overview of postage stamps and other philatelic materials (e.g., first day covers, maximum cards, postmarks) related to chemistry, including atoms and molecules, minerals, symbols and formulas, the periodic table, famous chemists, biochemistry and various aspects of the chemical industry.



DIRECTIONS AND MAP

The East Campus Dining Hall and the ISAT-CS Building are both located on the east campus (Skyline Area, east of I-81). From I-81: Take **exit 247A**, US 33 East (East Market Street), toward Elkton. Turn right at the first stop light (next to Shoney's) on to **Burgess Rd.** Go through the stoplight at the Harrisonburg Shopping Center. Turn right at the stoplight at the top of the hill (across from the Jameson Inn) on to **Evelyn Byrd Ave.** Move to the left lane. Go through the stoplight at the bottom of the hill (Reservoir St.) on to campus. Once you pass the soccer fields, there will be large parking lots on both sides of the street. Park in either of these lots (C12). On the opposite side of the street (Carrier Drive) from the parking lots are a number of buildings. The **East Campus Dining Hall** (listed on the map as the CISAT Dining Hall) is the last building on Carrier Drive, to your left as you exit the parking lot. The entrance is across from Chesapeake and Potomac Halls and the Montpelier Room is on the second floor of the building. **ISAT/CS** is part of the large building along Carrier Drive, west of the East Campus Dining Hall. The Physics and Chemistry Building and the Health and Human Services Building are connected to the ISAT/CS Building. The Festival Conference and Student Center and the Leesolu Alumni Center are also located in this area.



**East Campus Dining Hall
(CISAT Dining Hall)**



ISAT/CS

***** VIRGINIA SECTION NEWS *******FUTURE MEETINGS**

DATE: April 23, 2010
LOCATION: University of Virginia,
Charlottesville
HOST: Dr. James Demas
PHONE: (434) 924-3343
E-MAIL: demas @ virginia.edu
SPEAKER: Dr. Charles Grisham
TOPIC: "Bizarre Biochemistry"

⇒ ⇒ ⇒ ⇒ STUDENT POSTER SESSION**VIRGINIA ACADEMY OF SCIENCE
ANNUAL MEETING**

**James Madison University
May 20-22, 2010**



The 88th Annual meeting of the Academy will be held at James Madison University in Harrisonburg on **May 20-22**. Persons interested in the Chemistry Section program should contact Dr. Thomas DeVore, Chemistry Department, MSC 4501, James Madison University, Harrisonburg, VA 22807; (540) 568-6672; devoretc @ jmu.edu. More information on the VAS meeting can be found at <http://www.vacadsci.org/meetings.htm>.

STUDENT POSTER SESSION

The Virginia Section will hold its annual poster session at the **Friday, April 23** meeting at the University of Virginia in Charlottesville. The emphasis is on **student research**, especially work done by undergraduates. If you have a student who wishes to present a poster, please contact Dr. James Demas at demas @ virginia.edu or call (434) 924-3343.

Faraday Discussion 146

Wetting Dynamics of Hydrophobic and Structured Surfaces

April 12 - 14, 2010
Jefferson Hotel
Richmond, Virginia

The aim of this meeting is to convene scientists from experimental and theoretical disciplines to discuss a number of highly topical and controversial issues related to wetting and dewetting at hydrophobic surfaces.

The current interest in superhydrophobic surfaces has led to a conceptual widening of the term "hydrophobicity". Non-wetting of a surface may be achieved not only by minimising the surface free energy, but also via an appropriately tailored surface morphology. As a consequence, even low-energy liquids may dewet a surface and hydrophobicity becomes a more general "lyophobicity". Wetting dynamics at both smooth and structured surfaces is involved in a range of surface phenomena, including contact angle hysteresis, adhesion, surface forces, self-cleaning and the boundary conditions for fluid flow.

This very active area of current research has major cross-disciplinary implications, and a number of theoretical, modelling and experimental results are in urgent need of clarification and resolution if we are to understand better the properties and behaviour of extended and structured hydrophobic and lyophobic surfaces.

Physical chemists, biologists, materials scientists and nanotechnologists will benefit from attending this meeting, and its printed discussion.

Themes: Superhydrophobic Surfaces; Dynamic Transitions; Liquid-Vapour Interfaces and Nanobubbles; Heterogeneous Surfaces

Speakers: Peter J. Rosky, *The University of Texas at Austin*; Frank H. Stillinger, *Princeton University*; David Quéré, *ESPCI, France*; Thomas J. McCarthy, *University of Massachusetts*; Elisabeth Charlaix, *University of Lyon, France*; Julia M. Yeomans, *University of Oxford, UK*; Benjamin Widom, *Cornell University*; Jacob Israelachvili, *University of California, Santa Barbara*; Bruce J. Berne, *Columbia University*

Conference Sponsors: American Chemical Society (ACS) Division of Colloid and Surface Chemistry and Division of Physical Chemistry and Virginia Commonwealth University (VCU).

Conference Co-Chairs: Dr. Hugo K. Christenson (*University of Leeds, UK*), Professor Alenka Luzar (*Virginia Commonwealth University*)



SEMINARS AT THE UNIVERSITY OF VIRGINIA

- Mar. 26 - **Dr. Marco F. Ellis**, Northwestern University, "The Use of Alloplastic Implants in Plastic and Reconstructive Surgery" (**PAGE BARBOUR PLASTIC PROJECT LECTURE**)
- Apr. 2 - **Professor James Anderson**, Harvard University (**GRAHAM LECTURE**)
- Apr. 6 - **Professor David Tirrell**, University of California-Berkeley, "Reinterpreting the Genetic Code: Non-Canonical Amino Acids in Protein Science and Engineering" (**HECHT LECTURE**)
- Apr. 9 - **Professor Jennifer Doudna**, University of California - Berkeley, "Dicer and Beyond: Regulatory RNA Processing and Function" (**BURGER LECTURE**)
- Apr. 16 - **Dr. Linda Birnbaum**, National Institute of Environmental Health Sciences, "Halogenated Flame Retardants: Does the Benefit Justify the Risk?" (**PAGE BARBOUR PLASTIC PROJECT LECTURE**)
- Apr. 23 - **Professor Ka Yee Lee**, University of Chicago, "Beyond Wrinkling: Stress Relaxation in Surfactant Monolayers and Other Thin Films"

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

- Mar. 11 - **Dr. J. C. Poutsma**, College of William & Mary
- Mar. 25 - **Dr. Howard Fairbrother**, Johns Hopkins University
- Apr. 1 - **Dr. Keith Ellis**, Virginia Commonwealth University
- Apr. 8 - **Dr. Jacob Klein**, Weismann Institute of Science, Israel
- Apr. 15 - **Dr. Hugo Christenson**, University of Leeds
- Apr. 22 - **Professor Michael Klein**, Temple University, "Nothing Amuses More Harmlessly that Computation..." (**KAPP LECTURE**)
- Apr. 29 - **Dr. Lynn Penn**, Drexel University

The seminars are held at 4:00 p.m. in the Kapp Lecture Hall, Room 1024, in the Mary E. Kapp Wing of Oliver Hall, 1001 West Main Street in Richmond. The public is invited. For more information, call (804) 828-1298.

CHEMISTRY AT JAMES MADISON UNIVERSITY



The Department of Chemistry and Biochemistry at James Madison University currently offers ACS certified degrees in chemistry, biochemistry, materials chemistry, and chemical education, as well as non-ACS certified degrees in chemistry and chemical-business. A critical aspect of our undergraduate teaching philosophy is the involvement of undergraduates in research projects. The summer of 2010 will mark the nineteenth year that the summer research program has been funded by being designated as an NSF-REU site. In 2008, the JMU Department of Chemistry and Biochemistry received a Department Development Grant from the Research Corporation to further integrating undergraduate research into the curriculum at large public institutions.

In May 2005, the department moved into a new state-of-the-art building on East Campus that it shares with physics. This facility currently houses over \$2.5M in state of the art chemical instrumentation that is routinely used by students in their classes and for research. The two most visible components of our instrument holdings are the Shenandoah Valley Regional NMR Facility and the JMU Regional Undergraduate Laser Facility. The NMR facility has a 300 MHz, a 400 MHz, and a 600 MHz NMR that are also available to off campus users. The laser facility has been used to educate faculty from across the United States on ways to integrate lasers into their laboratory programs. Other notable instrumentation available for use by students includes numerous specialized FTIR's, a range of thermal analysis instrumentation, a variable temperature powder X-ray diffractometer, atomic force microscopes, and a scanning electron microscope.



JMU has two very active award winning student chemistry organizations: The JMU ACS Student Affiliate Chapter and the Gamma Kappa Chapter of Alpha Chi Sigma (the professional Chemistry fraternity).

CHANGE IN SECTION WEBSITE

The Virginia Section website has a new address:

<http://www.virginia.sites.acs.org/>

CHEMISTRY CAREER DISCUSSION

The WCC of the Virginia Section will again sponsor a chemistry career discussion panel for students interested in careers in the chemical sciences. The panel will be held on **Friday, April 9, 2010** at 12:30 pm in The Gallery in Georgiadis Hall at J. Sargent Reynolds Community College, Parham Road Campus, 1651 E. Parham Road, Richmond, VA. Speakers representing chemistry careers in teaching, research, business, and the law will share their career stories and answer questions. All interested students are invited, and light refreshments will be served. For more information or directions, contact Ann Sullivan, [asullivan @reynolds.edu](mailto:asullivan@reynolds.edu) or 804-523-5777.

REPORT ON THE JANUARY 2010 SECTION MEETING

On January 22, 2010, nearly 60 persons heard Dr. Foster Agblevor from Virginia Tech speak on the "Thermochemical Conversion of Biomass to Fuels and Chemicals." The Section meeting was held at the Science Museum of Virginia in Richmond. Dr. Stephanie Mabry presided. She presented a Past-President pin to Ken Chapman, outgoing Chair of the Section. Dr. Jeffrey Seeman provided some information on the Archimedes Initiative and showed a brief video that is part of this effort to interest young persons in science through science fair activities. Dr. Cheryl Baldwin introduced the speaker. Thanks to Yezdi Pithawalla and Stephanie Mabry for organizing this meeting and to the Science Museum of Virginia for hosting the Section.



Dr. Foster Agblevor



Attendees at the Jan. 22 meeting



Dr. Jeffrey Seeman

2010 VIRGINIA SECTION OFFICERS



Left-to-right:

Ken Chapman, Past-Chair
Stephanie Mabry, Chair-Elect
Yezdi Pithawalla, Chair
Karen Carter, Vice Chair

not shown: Trish Lauck, Secretary
Brad Norwood, Treasurer

CHEMISTS CELEBRATE EARTH DAY

The ACS and the Virginia Section will be celebrating Earth Day again this year. The 2010 theme is “**Plants—The Green Machines.**” Earth Day was first officially recognized on April 22, 1970 as a way to demonstrate support for a healthy environment and raise awareness about environmental issues. The ACS joined the Earth Day celebration in 2003 and there have been annual **Chemists Celebrate Earth Day (CCED)** events every year since then. This year’s events will include:



- a celebration on April 17 at the Midlothian Campus of John Tyler Community College;
- an illustrated poem contest; and
- an Earth Day competition for student affiliate chapters.

See the articles below for details of these activities. Check this website for general information on Chemists Celebrate Earth Day: www.acs.org/earthday.

VIRGINIA SECTION EARTH DAY CELEBRATION

The Virginia Section will celebrate Earth Day on Saturday, April 17 with a full schedule of activities at the Midlothian Campus of John Tyler Community College. “Celebrate the Earth” will be part of a free community festival known as Fool for Art. The CCED activities will operate from 10:00 a.m. through 3:00 p.m. There will be many hands-on opportunities relating to the Earth. John Tyler’s Midlothian Campus is located at 800 Charter Colony Parkway, just off the Woolridge Road exit of Route 288. Full directions can be found on the John Tyler website: www.jtcc.edu. Dr. Kristine Smetana is coordinating the CCED event and needs volunteers to help out. Contact her at ksmetana@jtcc.edu or at (804) 706-5143.

EARTH DAY COMPETITION FOR STUDENT AFFILIATE CHAPTERS

ACS student affiliate chapters at colleges and universities are invited to enter the CCED 2010 competition. Student chapters are encouraged to produce an activity for elementary school students to illustrate the 2010 theme about recycling. Entries must be original hands-on activities and must be received by the ACS in Washington by April 22, 2010. Each student affiliate may submit only one entry. First place receives \$500; second place \$250. Full contest information and rules can be found on the CCED website: www.acs.org/earthday.



EARTH DAY ILLUSTRATED POEM CONTEST

Students in grades K through 12 are invited to enter the CCED 2010 Illustrated Poem Contest by writing and illustrating a poem using the theme "Plants: The Green Machines." The poem may be in any style as long as it is no more than 40 words. The illustration must be created by hand using crayons, watercolors, other types of paint, colored pencils, or markers. Winners will be selected in four different grade categories: K-2; 3-5; 6-8; 9-12. The first-place winner in each category will receive \$200; second place gets \$100. Contest entries should be delivered to the Virginia Section CCED Coordinator at this address: Dr. Kristine Smetana, John Tyler Community College, 13101 Jefferson Davis Highway, Chester, VA 23831. Entries must be received by March 31, 2010. Full contest information and rules can be found on the CCED website: www.acs.org/earthday.

QUESTIONS FROM THE PAST

This question was asked in the February Bulletin: Between 1993 and 2006, the Summer issues of the Bulletin featured cartoons drawn by a member of the Virginia Section. The "artist" was very active in the ACS, serving as Chair of the Section, representing the Section as a Councilor, chairing a national ACS committee, and receiving the Distinguished Service Award from the Virginia Section. **Who did those 13 humorous drawings?** Charles E. (Eddie) Thomas was the artist in residence for those 13 years. Eddie was Section Chair in 1988.



A new question: Ms. Leah Jacobs is shown here playing the harp at a Virginia Section (this may have been the only time that this instrument was ever played at a Section meeting). **Where and when was this meeting?** Some additional hints: Ms. Jacobs was a junior Mass Communications major at the University hosting the meeting. She is a native of York, Pennsylvania. The meeting began with a Social Hour that featured Virginia wine and Virginia apple juice. A highlight of the meeting was the presentation of two door prizes – Ms. Dorothy Stevens received a package of Virginia apple products and Mr. Mike Pearson took home the grand prize, an original oil painting by Joanne Happ.

WORDS OF WISDOM FOR MARCH:

*“Live As If You Were to Die Tomorrow,
Learn As If You Were To Live Forever”*

JUDGES FOR THE VIRGINIA JUNIOR ACADEMY OF SCIENCE

Judges and meeting chairs are needed for the 69th annual meeting of the Virginia Junior Academy of Science (VJAS), to be held at James Madison University in Harrisonburg, May 20, 2010. 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 **susanscience @ msn.com** or at (757) 874-3349. 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.

SERMACS 2011 - Charting Chemical Connections

The Virginia Section of the American Chemical Society (ACS) will host the 63rd Southeastern Regional Meeting of the ACS (SERMACS 2011) during October 25-29, 2011. The theme of the meeting is "Charting Connections in Chemistry". The Local Organizing committee has members from the Virginia Local Section but we need more volunteers to help with this meeting. Some of the areas where help is needed include: Website Maintenance, Registration, Hospitality, and Volunteer Coordinator. Under the Programming subcommittees we need volunteers for Local Arrangements and AV, Women's Committee, Younger Chemists Committee, Educational Activities, Awards and Diversity, Employment/Career Workshop, Social/Non-technical, Workshop Coordinator, Tour Coordinator, Local Events Coordinator, and Symposia Coordinators. Please contact General Chair Joe Pompano: [joe.pompano @ boehringer-ingelheim.com](mailto:joe.pompano@boehringer-ingelheim.com) or Program Chair Ann Sullivan: [asullivan @ jsr.vccs.edu](mailto:asullivan@jsr.vccs.edu) for more information about submitting a symposium or volunteering. General information on SERMACS 2011 can be found on the SERMACS website: <http://sermacs2011.org>.

CAN YOU IDENTIFY THESE PERSONS?



The photograph is from 1992. It was taken at a Section meeting held in March of that year at Longwood College (now Longwood University). The gentleman is a long-time member of the Virginia Section, having served in many offices, including that of Section Chair (1970). He received the Distinguished Service Award in 1976 and now resides with his wife Ann in Hopewell. The lady was the wife of the speaker at the Section meeting in March, 1992. Her husband was a renowned medicinal chemist. At the time of the meeting he was Professor Emeritus at the University of Virginia. The American Chemical Society's award in medicinal chemistry is named for him.

The "mystery person" in the February issue was Mary Virginia Carson, recipient of the Distinguished Service Award in Science Teaching in 1969. She was then the chairman of the Science Department at John Handley High School in Winchester, Virginia.



THE BULLETIN

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Chair - Dr. Yezdi Pithawalla (804) 335-2301



**Yezdi
Pithawalla**

Chair-Elect - Dr. Stephanie Mabry (804) 639-6991
Vice Chair - Dr. Karen Carter (804) 521-7369
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Treasurer - Dr. Bradley Norwood (804) 271-5572 ext. 307
Bulletin Editor - Dr. James Beck (804) 733-5286
Bulletin Publisher - Dr. Will Lewis (804) 274-5869

