



The Bulletin
of the
Virginia Section
AMERICAN CHEMICAL SOCIETY

FEBRUARY MEETING NOTICE

**University of Richmond
Richmond, Virginia**

Friday, February 10, 2006

**POWELL
RECEPTION** **6:00 p.m.**
Richmond Room
Heilman Dining Center

DINNER: **6:30 p.m.**
Richmond Room
Heilman Dining Center

PROGRAM: **7:30 p.m.**
Auditorium
Gottwald Science

Center

MENU: House Salad, Herb Stuffed Chicken Breast, Roasted New Potatoes,
Vegetable Medley, Rolls, Assorted Desserts, Coffee and Tea. Vegetable
Lasagna is available as a vegetarian alternative.

PRICE: \$12.00 (no reductions)

**DINNER
RESERVATIONS:** Please make reservations for the Dinner by **NOON on Tuesday,
February 7** by calling the Chemistry Department at the University
of Richmond, (804) 289-8242 or e-mail to amallory@richmond.edu.
**NOTE: Because of space constraints, the number of dinner places is
limited to 80. PLEASE MAKE YOUR RESERVATION EARLY.**

HOST: Dr. William Myers, (804) 289-8249; wmyers@richmond.edu

SPEAKER: **Dr. Donald Levy, University of Chicago**

TOPIC: **“Supersonic Jet Spectroscopy: From Diatomics
to Biological Molecules”**

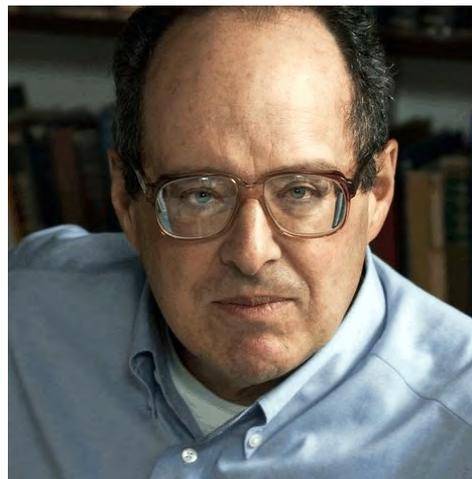
FEBRUARY 2006

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
			<i>reservations</i>		<i>meeting</i>	
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

The W. Allan Powell Lectureship

Dr. Donald Levy

Professor Donald Levy received his B. A. from Harvard University in 1961 and his Ph.D. from the University of California, Berkeley in 1965. From 1965-1967 he was a post-doctoral fellow at Cambridge University. He has been a professor at the University of Chicago since 1967 and is currently Albert A. Michelson Distinguished Service Professor. He has a distinguished record as a molecular spectroscopist, and is the inventor, along with Lennard Wharton, and Richard Smalley, of the supersonic free jet technique. He was associate editor of the Journal of Chemical Physics from 1983 to 1997 and since 1998 has been the editor. He is a Fellow of the American Physical Society, of the AAAS, of the American Academy of Arts and Sciences, and a member of the National



Academy of Sciences. He has been invited to lectureships at many universities, and his many awards include the Plyler Prize, the Lippincott Award, the E. B. Wilson award, and fellowships from the Alfred P. Sloan Foundation, the Dupont Foundation and the John Simon Guggenheim Foundation.

Supersonic Jet Spectroscopy: From Diatomics to Biological Molecules

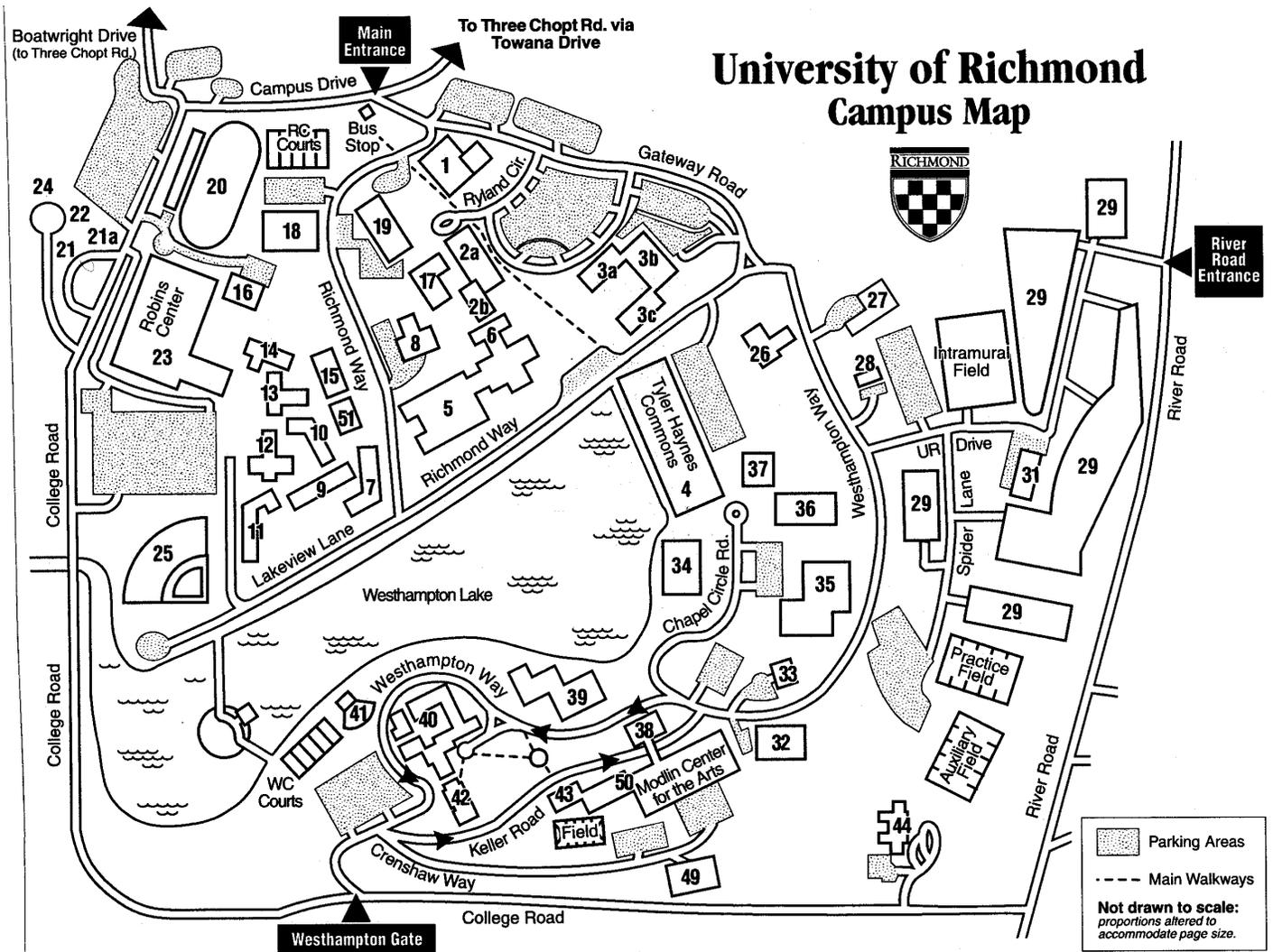
Using traditional techniques, it is difficult to observe and analyze the high-resolution gas-phase spectra of any but the smallest molecules: diatomics, triatomics, and somewhat larger molecules which have some symmetry to aid the analysis. Supersonic jet spectroscopy is a technique which greatly simplifies a molecule's gas-phase spectrum and extends the range of gas-phase spectroscopy to much larger species. In the lecture I will describe the technique and try to explain why it does what it does; i.e. why a supersonic jet expansion produces well-resolved spectra of large molecules. I will illustrate the lecture with examples of van der Waals molecules and molecules of biological interest which are usually not observed at all in the gas phase.

VIRGINIA ACADEMY OF SCIENCE MEETING

The Virginia Academy of Science Meeting will be held at Virginia Tech in Blacksburg on May 24-26, 2006. Persons interested in presenting in the Chemistry Section should send the author's name(s), author's affiliation(s), and presentation title to Dr. Thomas DeVore, Chemistry Department, MSC 7701, James Madison University, Harrisonburg, VA 22807; (540) 568-6672; devoretc @ jmu.edu. The deadline is February 17. More information can be found at <http://www.vacadsci.org>.

DIRECTIONS

From I-64, take the Glenside Drive South exit (Exit 183A) and go about 1.5 miles to the 4th traffic light. Turn left on to Three Chopt Road and go about 0.8 mile. Follow the signs to the University of Richmond, turning right on to Boatwright Drive, then left on to Campus Drive. Turn right through the main gate. Continue on Gateway Road to the traffic island. Turn left on to Westhampton Way. Continue on Westhampton Way to the top of the hill where it joins Chapel Circle Drive. Parking is available in two lots at the top of the hill. The Powell Reception and Dinner will be in the Richmond Room (downstairs) of the Heilman Dining Center (# 34 on the map below) which is across from the Gottwald Science Center (# 35). The program will be in the auditorium of the Gottwald Science Center. Note—there is no parking available in front of the Science Center. See map below.



HEILMAN DINING CENTER

GOTTWALD SCIENCE CENTER

P = PARKING

***** VIRGINIA SECTION NEWS *****

FUTURE MEETINGS

DATE:	March 21, 2006	DATE:	April 13, 2006
LOCATION:	Virginia Military Institute Lexington, Virginia	LOCATION:	University of Virginia Charlottesville
HOST:	Dr. Adele Addington	HOST:	Dr. James Demas
PHONE:	(540) 375-2364	PHONE:	(434) 924-3343
SPEAKER:	Dr. Domenic Paone	SPEAKER:	Dr. John Butler
TOPIC:	Novozyme Biological Projects	TOPIC:	"Beyond CSI: Exciting Applications of Forensic DNA"

STUDENT POSTER SESSION

SEMINARS AT VIRGINIA COMMONWEALTH UNIVERSITY

Thursday, Feb. 9 - **Professor Ken Klabunde**, Kansas State University

Thursday, February 23 - **Dr. Adam Rondinone**, Oak Ridge National Laboratory

Thursday, March 23 - **Dr. Robert Flowers**, Lehigh University

Friday, March 31 - **Dr. Rich Saykally**, University of California at Berkeley (**KAPP LECTURE**)

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.

SEMINARS AT THE UNIVERSITY OF VIRGINIA

February 3 - **Professor Stig Friberg**, University of Virginia Visiting Scientist

February 24 - **Professor Patrick Vaccaro**, Yale University, "Lifting the Veil of Solvation: The Chiro-Optical Response of Isolated Organic Molecules"

March 31 - **Professor Jonathan Sweedler**, University of Illinois at Urbana-Champaign

April 7 - **Professor Martin Semmelhack**, Princeton University (**LUTZ LECTURE**)

April 14 - **Dr. John Butler**, National Institutes of Standards and Technology

Seminars are scheduled for 4:00 p.m. in Room 304 of the Chemistry Building. The complete colloquium schedule can be found at <http://www.virginia.edu/chem/newsandevents/seminars/>.

SCIENCE FAIR JUDGES NEEDED

On April 8, 2006, Randolph-Macon College in Ashland, Virginia, will sponsor the 20th annual Virginia State Science & Engineering Fair, bringing to the Richmond area over 250 bright high school science students to compete for awards and a chance to attend the Intel International Science and Engineering Fair. Judges are needed for the Biochemistry, Chemistry, Environmental Sciences, Medicine and Health, Team Projects, Mathematics, Engineering, Physics, Earth Sciences, and Zoology categories. Judges meet at 7:00 a.m. for breakfast; judging is completed by 2:00 p.m. If you or your colleagues are interested in being a part of this challenging and rewarding effort, please contact Dr. Adrian Rice, at arice @ rmc.edu. More information on the Fair and on judging can be found at www.rmc.edu/sciencefair.

CHANGES FOR MARCH MEETING

Please note the change in date and speaker for the March Section meeting. The joint meeting with the Blue Ridge Section will be held on **Tuesday, March 21** at the Virginia Military Institute in Lexington. Dr. Domenic Paone of Novozyme Biologicals, Inc. will be describing some of his company's interesting work. Further information can be obtained from Dr. Adele Addington, Assistant Professor of Chemistry at Roanoke College: (540) 375-2364; [addington @ roanoke.edu](mailto:addington@roanoke.edu).

2006 CHEMISTRY OLYMPIAD

The Virginia Section will host the 2006 Chemistry Olympiad for all high school chemistry teachers and students who are interested in participating. The Local Section competition will begin on Saturday, March 4 and end on Saturday, March 25, 2006. There will be two options for the participants with several Virginia colleges hosting the competition, or individual high school teachers can make arrangements within their schools to provide secure testing sites. **The deadline for applications will be February 24, 2006.** For more information and the application forms, either hard copy or on-line, go to the Virginia Section Chemistry Olympiad site at <http://membership.acs.org/VVA/olympiad/default.htm>.

The students who do well in the Local competition will be nominated to compete in the National competition hosted at J. Sargeant Reynolds Community College in Richmond, Virginia on April 22. These students will compete for 20 positions in the study camp at the US Air Force Academy in Colorado. The five member International Chemistry Olympiad (IChO) team will be chosen from these 20 students to compete in the IChO. This year the 38th International Chemistry Olympiad competition will be held in Gyeongsan, Republic of Korea on July 2-11, 2006.

Local Section competition is organized into three categories: small public or private schools, large schools, and schools with specialized programs such as Governor's schools. Each student who participates receives a certificate or recognition. The highest scoring student from each school receives a Chemistry Olympiad pin. High scoring students in the Section will receive gift certificates. Team awards will be presented to schools for group achievement.

For complete information and registration materials, visit the Virginia Section website or contact the Olympiad Coordinator: Dr. Ann Sullivan, Mathematics and Science, Downtown Campus, J. Sargeant Reynolds Community College, P. O. Box 85622, Richmond, VA 23285-5622; (804) 523-5777; FAX: (804) 225-2437; e-mail: asullivan@reynolds.edu.

CHEMISTRY AT THE UNIVERSITY OF RICHMOND

The Chemistry Department at the University of Richmond is located in the Gottwald Science Center along with the Departments of Biology and Physics. Offering both the B.S. and B.A. degrees in chemistry and the B.S. degree in Biochemistry & Molecular Biology, the department provides excellent preparation for work or professional studies in chemistry, chemical engineering, biochemistry, and the health sciences. The department meets certification requirements by the American Chemical Society for the B.S. in Chemistry and in Chemistry/Biochemistry.

Our students receive a strong background in chemistry in an environment of activity and support from an able and enthusiastic faculty. Class sizes are never greater than 40 and upper level classes and teaching laboratory sections generally have less than 20. Students enjoy the use of a wide variety of modern instrumentation both in their teaching laboratories and in their research. Many of our students present the results of their research work to the scientific community both by presentation at meetings on and off campus and in publications. They have the opportunity to grow and learn in an exciting and supportive atmosphere, and when it is all over, they find that they are well prepared to pursue their dreams.

The chemistry major at the University of Richmond provides a strong basic background in the major sub disciplines of chemistry (analytical, inorganic, organic, physical and biochemistry). Richmond graduates are ready to enter the best chemistry graduate programs in the country, to enter the work force as chemists in industry and government, to proceed into careers as secondary school teachers, or to develop careers in sales and marketing for technical industry. The major also provides strong background for studies in the health professions, the allied health professions and law. The number of students graduating with a major in chemistry has been between 15 and 25 for the past few years. The majority of our students participate in research sometime during their program. About half of recent graduating chemistry majors entered graduate programs in chemistry or related fields.



A \$35 million renovation and expansion of Gottwald Science Center is now nearly complete. Approximately 28,000 square feet of new space has been added and the existing 162,000 square feet have undergone extensive renovation to include cutting-edge technology and scientific equipment. New space spans parts of the existing south and west sides of the building. Our facility includes a new atrium, new and renovated research laboratories and an entrance more closely aligned with the Collegiate Gothic architecture of most campus buildings. Flexibility to add future teaching and research technologies was designed into the project.

Upgrading Gottwald is part of the University's \$50 million plan to improve science facilities and programs over this decade and to place Richmond among the first-choice colleges of America's top high school science students. The initiative includes creating five interdisciplinary centers for scientific discovery-material science, environmental science, neuroscience, biological chemistry, and nuclear and particle physics. Over this decade, the University will add up to 18 new faculty positions and place greater emphasis on interdisciplinary studies and innovative science classes for non-majors.

THE BULLETIN

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CAN YOU IDENTIFY THIS PERSON?



The photograph is from 1992. The subject received a B.S. degree from Villanova University and a Ph.D. in Inorganic Chemistry from the University of Florida. He taught physics and chemistry in New York state before taking a teaching position at Midlothian High School in Chesterfield County. He has taught chemistry there for 25 years. In 1988 he received the Virginia Section's Distinguished Service Award for High School Chemistry Teaching. He served as Chair of the Section in 1999. He has been actively involved in the Section's Education Committee for many years.

The "mystery person" in the January issue was Dr. Richard Miller, recipient of the Section's Distinguished Service Award for High School Chemistry Teaching in 1986.

