

The Blue Ridge Chemist

The Blue Ridge Chemist, since 1947 the
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No. 7

Help Treat the Earth



to a Greener Environment

Ferrum College Hosts the October Meeting

Hollins University Hosts the November Meeting

<http://membership.acs.org/V/VBR>

VIRGINIA BLUE RIDGE SECTION AMERICAN CHEMICAL SOCIETY

611th SECTION MEETING

Hosted by Ferrum College

Thursday, October 25, 2007

PROGRAM:

- 5:30-6:00 Social Time, Blue Ridge Mountain Room
6:00-7:00 Dinner, Blue Ridge Mountain Room
7:00-8:00 Presentation, Garber Hall, Room 106

The social time and dinner will take place in the Blue Ridge Mountain Room in the Skeens Conference Center in Franklin Hall. The presentation will be in Room 106 of Garber Hall. Dr. Stanley Manahan will be speaking on "The Greening of Environmental Chemistry".

Dinner will be salmon and beef tenderloin, baby baked potatoes, vegetable medley, artisan rolls, chef's dessert, and beverage service. The beef will be "properly" served cooked medium rare. A special request can be made when the reservation is made for more thoroughly cooked meat. A vegetarian option of jumbo ravioli stuffed with spinach Florentine and ricotta cheese topped with a pomodoro sauce, and served with the vegetable medley is available upon request when the reservation is made. Cost for the dinner is \$14.00, with students and retired ACS members being half price.

Reservations for the dinner must be made by THURSDAY, OCTOBER 18, SEVEN DAYS before the meeting, by phoning Jason Powell at (540) 365-4376, or by e-mail to JPowell@ferrum.edu, or by mail to Jason Powell, Department of Chemistry, Ferrum College, Ferrum, VA 24088.

Stanley E. Manahan
University of Missouri-Columbia

Stanley E. Manahan is a professor of chemistry at the University of Missouri-Columbia, where he has been on the faculty since 1965. He received his A.B. in chemistry from Emporia State University in Kansas in 1960 and his Ph.D. in analytical chemistry from the University of Kansas in 1965. Since 1968, his primary research and professional activities have been in environmental chemistry, with recent emphasis on hazardous waste treatment. Current research deals with gasification as an alternative to incineration as a means of thermally treating hazardous waste materials without producing toxic pollutant byproducts. Professor Manahan has taught courses on environmental chemistry, hazardous wastes, toxicological chemistry, and analytical chemistry and has lectured on these topics throughout the U.S. as an American Chemical Society Local Sections tour speaker and in a number of countries including France, Italy, Austria, Japan, Mexico, and Venezuela. Professor Manahan has written books on environmental chemistry (Environmental Chemistry, 8th ed., 2004, Taylor & Francis/CRC press), green chemistry (Green Chemistry: Fundamentals of Sustainable Chemical Science and Technology, 2004, ChemChar Research, Inc.) general/environmental chemistry (Fundamentals of Environmental Chemistry, 2nd ed., 2000, Lewis Publishers/CRC press), hazardous wastes and industrial ecology (Industrial Ecology: Environmental Chemistry and Hazardous Waste, 1999, Lewis Publisher/CRC press), toxicological chemistry (Toxicological Chemistry and Biochemistry, 3rd ed., 2002, Lewis Publishers/CRC press), applied chemistry, and quantitative chemical analysis. He is the author or co-author of approximately 90 research articles.

The Greening of Environmental Chemistry

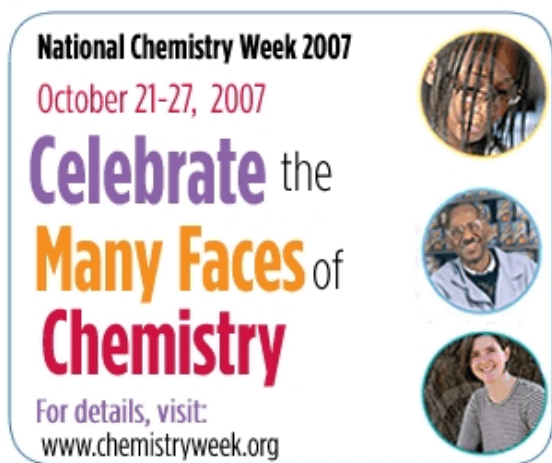
Environmental chemistry has become firmly established as a viable subdiscipline in the chemical sciences, and some chemical educators argue that it should be a required part of the curriculum for a chemistry degree. Environmental chemistry may be defined as the study of the origins, transport, reactions, effects, and fates of chemical species in the atmospheric, aquatic, terrestrial, living, and anthropogenic environments. The successful applications of environmental chemistry can be used to predict pollution problems at the design stages of new technologies, permitting remedial action to be taken before major problems actually develop. This lecture discusses environmental chemistry on the basis of the author's book on that topic, which has been in print for more than three decades and is in its eighth edition. The environment is treated as consisting of five mutually interacting spheres of which four - the atmosphere, the hydrosphere, the geosphere, and the biosphere - have long been considered in traditional treatments of environmental science. However, to be realistic in the modern era, a fifth sphere must be considered: The anthrosphere consisting of the things that people make and do. Environmental chemistry considers how these five spheres interact chemically with each other, interchanging materials and energy. This lecture traces the evolution of environmental chemistry over the last several decades. In its earliest stages, environmental chemistry was focused upon pollutant detection and pollution control dictated by regulation, a "command and control" approach based upon "end-of-pipe" measures that emphasize removal of pollutants from exhaust and discharge streams after they are produced. The lecture describes how, since those earlier days, environmental chemistry has undergone a "greening" process in which emphasis is now upon inherently non-polluting practices and sustainability. Included is a discussion of such concepts as industrial ecology, eco-efficiency, and, especially as applied to chemistry, green chemistry.

Poster Contest

The American Chemical Society is again sponsoring a poster contest for students in grade K-12. This year's theme is "The Many Faces of Chemistry". Guidelines can be found on the ACS website at:

<http://acswebcontent.acs.org/ncw/k-12contest.pdf>.

Posters must be submitted to the local section by October 19, 2007. For additional information and drop off locations, please contact Bill Lokar (lokar_w@lynchburg.edu, (434) 544-8631) or see the ACS website above.



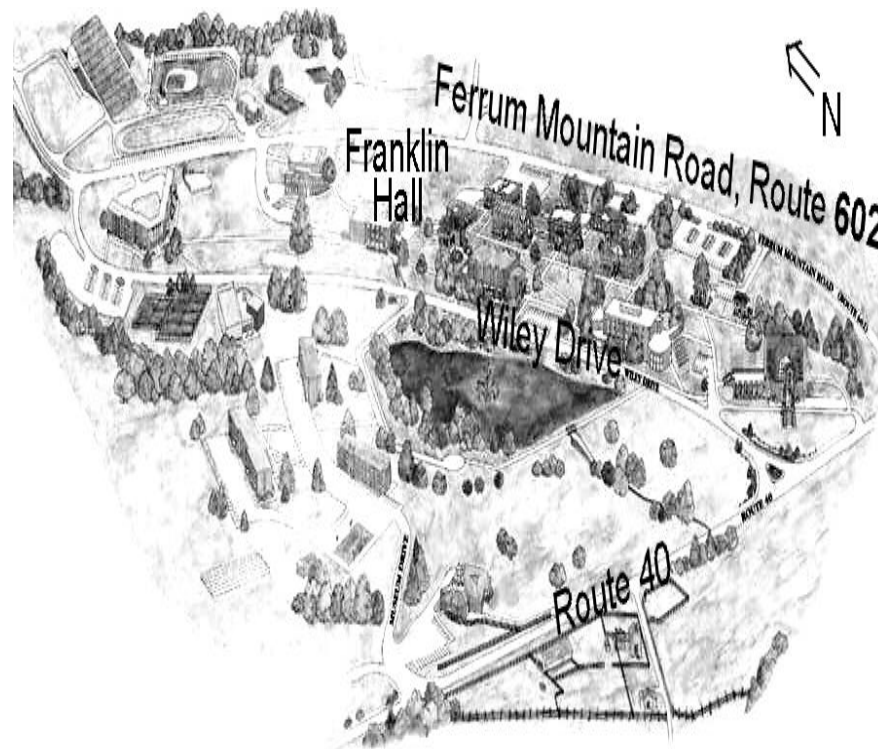
Call for Volunteers

Come out and support chemistry in your local section! The Virginia Blue Ridge Section of the American Chemical Society is seeking groups and individuals to volunteer for National Chemistry Week activities throughout the section. Volunteers are needed at Amazement Square in Lynchburg on October 20. If you or your group is interested in volunteering, please contact Bill Lokar for more information. lokar_w@lynchburg.edu (434) 544-8631.

Directions to Ferrum College

Directions to Ferrum College from Roanoke: Take Interstate 581 South which turns into Route 220 South. Stay on Route 220 through Boones Mill to Rocky Mount. Take the second Rocky Mount exit to Route 40 West. Ferrum is 10 miles beyond Rocky Mount on Route 40 West. Pass Ferrum Mountain Road (Route 602) on your right, then take the next right into the college's main entrance. You will pass Garber Hall (with the greenhouse) on the right, then Stanley Library and Schoolfield Hall. The next building on the right is Franklin Hall, and parking is available below Franklin Hall across from the Fitness Center. The Blue Ridge Mountain Room is the large meeting area on the second floor of Franklin Hall.

Map to Ferrum College



**VIRGINIA BLUE RIDGE SECTION
AMERICAN CHEMICAL SOCIETY**

**612nd SECTION MEETING
Hosted by Hollins University**

Tuesday, November 6, 2007

PROGRAM:

5:30-6:00 Social Time, Ballator Gallery, Moody Center

6:00-7:00 Dinner, Ballator Gallery, Moody Center

7:00-8:00 Talk, Ballator Gallery, Moody Center

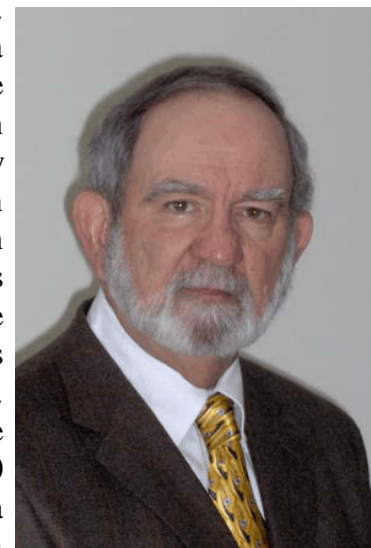
The social time, dinner, and talk will take place in the Ballator Gallery, Moody Center. Dr. W.H. Jack Breazeale, College of Charleston/Laboratory Safety Institute, will be speaking on "The H. L. Hunley: Recovery and Preservation".

Dinner will be chicken cordon bleu, vegetable Napoleon, rice pilaf, green beans and almonds, tossed salad, rolls, and apple pie. A vegetarian option is available upon request when the reservation is made. Cost for the dinner is \$14.00, with students and retired ACS members being half price.

Reservations for the dinner must be made by WEDNESDAY, OCTOBER 31, SIX DAYS before the meeting, by phoning Dan Derringer at 540-362-7433, or by e-mail to dderringer@hollins.edu, or by mail to Dan Derringer, Hollins University Department of Chemistry, P.O. Box 9607, Roanoke, VA 24020, or phoning Judy Snyder at 540-362-6543.

**W.H. Jack Breazeale
College of Charleston/Laboratory Safety Institute**

Dr. Jack Breazeale received his Ph.D. from the University of South Carolina in 1966. He taught at Winthrop College in Rock Hill, SC from 1965-1970. In 1970 he was a founding faculty member of a new state college in Florence, SC: now Francis Marion University. From 1970 until his retirement in 1997, he was chair of the Department of Chemistry and Physics and Professor of Chemistry. Dr. Breazeale has been active in the American Chemical Society for over 40 years. He has served nine years as a member of the ACS Committee on Chemical Safety including three years as chair. He also held offices in the ACS Division of Chemical Health and Safety including that of chair. Other activities at the national level have included appointments to the Committee on the Economics Status of Chemists, the Committee on Constitution and Bylaws, the National Chemistry Week Task Force with three years as chair, and the Board of Trustees for Group Insurance Plans for ACS Members. He is currently a member of the Council Committee on Committees. At the local level Dr. Breazeale has held several offices in the South Carolina Section including chair and currently serves the Section as Councilor. His interest in laboratory safety became a major professional activity in the early 1980s in the South Carolina Section. Dr. Breazeale has presented in the Laboratory Safety Institute workshops for some twenty years. These presentations include one-, two-, and four-day workshops nationwide on various safety topics. He presently serves on the Board of Trustees of the Laboratory Safety Institute. He resides in Mount Pleasant, SC and is an Adjunct Professor of Chemistry at the College of Charleston.



The H. L. Hunley: Recovery and Preservation

On the night of February 17, 1864 the Confederate submarine, the H. L. Hunley, attacked and sank the USS Housatonic. The attack occurred in Charleston Harbor on the South Carolina coast. The Hunley and its crew never returned from the mission. That is, until 8:37 a.m. on August 8, 2000, when the submarine and its crew were recovered off the South Carolina coast. Work is complete on the recovery of the crew and continues on the preservation of the vessel. The talk will include a brief history of the Hunley, explain the search and recovery process, and a brief discussion of the continuing preservation process of the submarine.

Attention Chemists Interested in Becoming Chemistry Teachers:

The Hach Scientific Foundation, a private foundation out of Fort Collins, Colorado dedicated solely to chemistry education, would like to help folks with chemistry degrees and chemistry work experience to become enrolled in any teachers' certification/Master's in education program across the country. These people are welcome to apply for the Second Career Chemistry Teacher Scholarship. The scholarship is \$6000 for full-time students and \$3000 for part-time students and is annually renewable through graduation. Applications for the scholarship are available on the Each Scientific Foundation website: www.hachscientificfoundation.org by clicking the "Second Career Chemistry Teachers" page. Applications are due January 31, 2008. Anyone with questions about this scholarship should contact Bryce Hach at brycehach@hachscientificfoundation.org.

The Hach Scientific Foundation would like to help any chemist fulfill their dreams of giving back to society and their science by becoming a teacher!

Ballot, Blue Ridge Section, ACS, for 2007

The Nominating Committee has prepared the following slate of nominees for the election at the November meeting. All have agreed to serve if elected. Other nominees will be accepted from the floor at that meeting. If you would like to nominate someone, please check with that person about his or her willingness to serve.

Chair	_____	Joe Wigau, Radford University
	_____	_____
Chair-elect	_____	Bill Lokar, Lynchburg College
	_____	_____
Secretary	_____	Michele Mayberry, Latimer, Mayberry & Matthews IP Law, LLP
	_____	_____
Treasurer	_____	Vernon Miller, Roanoke College
	_____	_____
Recorder	_____	Gary Hollis, Roanoke College
	_____	_____
Newsletter Editor	_____	Vernon Miller, Roanoke College
	_____	_____
Councilor	_____	Ben Huddle, Roanoke College
	_____	_____
Alternate- councilor	_____	Gwen Sibert, Roanoke Valley Governor's School
	_____	_____

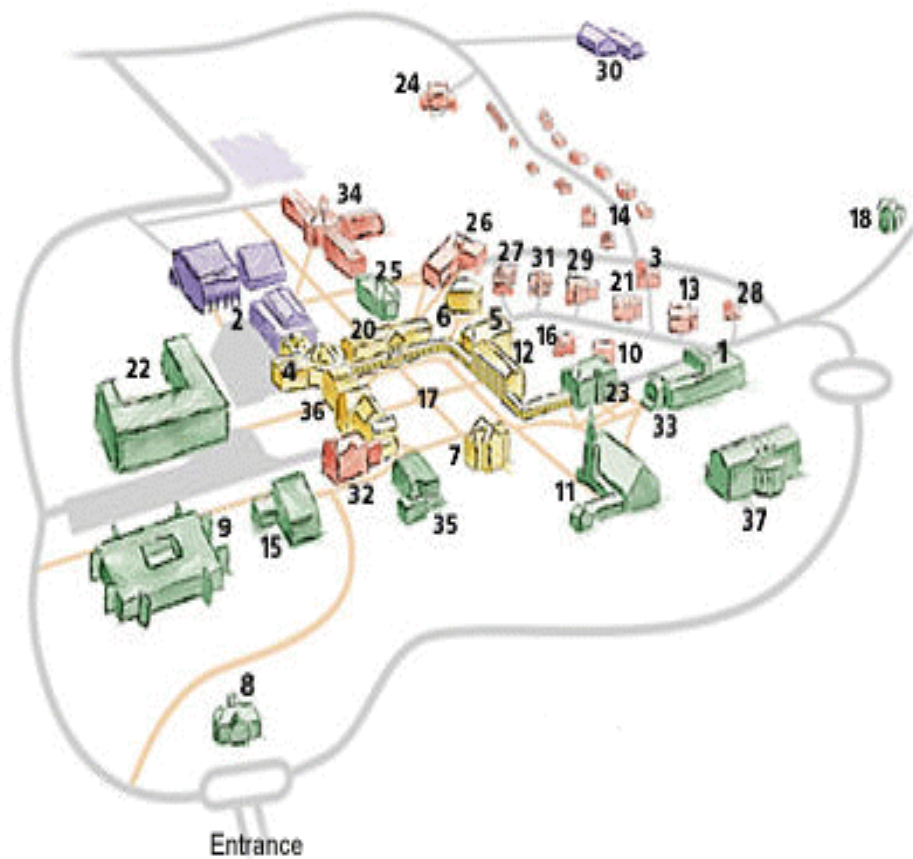
Please bring your ballot to the November meeting, or mail it to Dan Derringer, Hollins University Department of Chemistry, P.O. Box 9607, Roanoke, VA 24020

Directions to Hollins University

From I-81, take the Hollins exit (146) south to Peters Creek Road and turn left. The entrance to Hollins University is a little more than half a mile and is on the left.

The meeting is in the Ballator Gallery of the Moody Center (Building #22)

Map of Hollins University



THE BLUE RIDGE CHEMIST
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