

The Blue Ridge Chemist

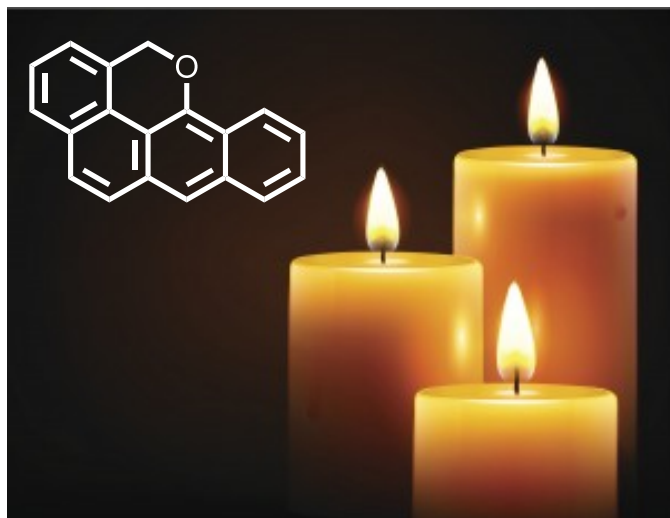
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Ferrum College Hosts the November Meeting

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VIRGINIA BLUE RIDGE SECTION

AMERICAN CHEMICAL SOCIETY

697th SECTION MEETING
Ferrum College, Ferrum VA

Thursday, November 15, 2018

5:30 PM – Social Time
6:00 PM to 7:00 PM – Dinner
7:00 PM – Lecture

Dr. Houston Miller, Professor of Chemistry at George Washington University, will be speaking on “Aromatic Carbons in Flames and Space”. The social time, dinner, and talk will take place in the Blue Ridge Mountain Room in Franklin Hall at Ferrum College.

The meal will be a pasta buffet consisting of a garden salad, antipasto platter, penne pasta, ricotta cheese stuffed tortellini, grilled chicken, garlic bread, and cheesecake. The dinner is \$15.00, with students and retired ACS members at half price.

Reservations for the dinner must be made by Monday Nov 05, ten days before the meeting, by contacting Maria Puccio by e-mail at mpuccio@ferrum.edu or by phone at (540) 365-4238.





Prof. J. Houston Miller, PhD
Professor of Chemistry
George Washington University

Dr. Miller received his Bachelors in Chemistry (with honors) from Oberlin (Ohio) College in 1976 and his Ph.D. in 1980 from the University of Virginia. His dissertation was titled “Matrix Isolation Spectroscopy of Molecular Ions and Free Radicals”. From 1980-1982, Dr. Miller was a Postdoctoral Fellow at the National Bureau of Standards. In 1982, Dr. Miller accepted a position at the George Washington University in Washington D.C. where he is currently a Professor of Chemistry. During his tenure at George Washington, Dr. Miller has been a Visiting Professor at the University of Sydney (Australia), Leverhulme Visiting Professor in the Department of Chemical Engineering at Cambridge University, and a Bye Fellow at Robinson College. He has received the Codon Award from the National Bureau of Standards, the Churchill Fellowship, and the 2011 Bender Teaching Award from George Washington University.

Dr. Miller’s lab primarily develops and applies laser diagnostics to the analysis of problems in combustion science, atmospheric chemistry, and biotechnology.

Lecture Summary

Aromatic Carbon in Flames and Space

A bright yellow glow is a ubiquitous feature of most fires and flames and is known to anyone who has ever stared at a candle flame. This emission is from very hot, nanometer-sized particles of mostly carbon, along with smaller quantities of some other elements, especially hydrogen. Given the central role that these particles hold in the human experience, it is remarkable that the details of how they are formed are not fully known. Processes that occur in flames happen quickly. Small particles containing perhaps a million carbon atoms are assembled in less than one second from molecules that contain only a few carbon atoms. Thus, this chemistry involves thousands (perhaps millions) of successive steps and just as many intermediates. To compound the problem, laboratory diagnostics that are usually applied to the study of soot formation typically give us information about small molecules or relatively large particles, leaving a great deal of uncertainty about what happens in between. Prof. Miller will describe his experimental investigations of these important transformations.

Directions to Franklin Hall, Ferrum College

From I-81 take I-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 onto Wiley Drive. 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 Y”). In the map, the dashed red line shows the path from Route 40 and the star denotes the parking lot. Franklin Hall is building 26. The Blue Ridge Mountain Room is located on the 2nd floor of Franklin Hall.

Map of Ferrum College



Upcoming VBRS Meetings

February 2019 – Hollins College

March 2019 – Roanoke Valley Governor's School

April 2019 – Radford University – Poster Session & Awards!

May 2019 – Tour of Luna Innovations (Christiansburg VA)

Elections for 2019 VBRS Officers

The Virginia Blue Ridge Section has adopted electronic election procedures. On approximately November 01, 2018, each member will receive an email (originating from SurveyMonkey.com) with a ballot and instructions for completing the survey. The survey will remain open until 4:00 pm on November 15, 2018. At that time, the votes will be counted, and the results will be announced at the Ferrum College meeting that evening.

The ballot for the 2019 officers is as follows:

Chair

Our chair will be our 2018 Chair-Elect, Jason Crumpton, so no election is necessary for this position.

Chair-Elect

Maggie Bump (VT) or write-in

Secretary

Samrat Thapa (U Lynchburg, incumbent) or write-in

Treasurer

Steve Smith (RVGS, incumbent) or write-in

Recorder

Gary Hollis (Roanoke College, incumbent) or write-in

Newsletter Editor

Paul Deck (VT, incumbent) or write-in

Councilor

Gary Hollis (Roanoke College, incumbent) or write-in

Alternate Councilor

Maria Puccio (Ferrum College, incumbent) or write-in