

# The Blue Ridge Chemist

The Blue Ridge Chemist, since 1947 the  
Official Local Section Publication of the  
Virginia Blue Ridge Section, American Chemical Society



## VIRGINIA BLUE RIDGE SECTION AMERICAN CHEMICAL SOCIETY

**672<sup>nd</sup> SECTION MEETING**  
**Polymer Solutions Incorporated**  
**Thursday, May 28, 2015**

### PROGRAM:

4:30-6:30 Tour of Polymer Solutions Incorporated  
6:30-? Dinner: Ruby Tuesdays, 2380 Roanoke St,  
Christiansburg, VA 24073 (Phone: 540-382-9474)

This month's meeting is a tour of Polymer Solutions Incorporated located at 135 Technology Drive; Christiansburg, VA 24073; 540-961-4300 and followed by dinner at Ruby Tuesdays, 2380 Roanoke St, Christiansburg, VA 24073 (Phone: 540-382-9474)

Each person will pay for dinner individually. The menu can be found at <http://www.rubytuesday.com/menu>.

Reservations for the dinner must be made by THURSDAY May 21, (7 DAYS BEFORE THE MEETING) by contacting Maria Puccio 540-365-4238, or by e-mail to [mpuccio@ferrum.edu](mailto:mpuccio@ferrum.edu), or by writing Maria Puccio, Ferrum College, GRB 309; 80 Wiley Dr. Ferrum, VA 24088.

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No. 5

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Metal Testing

Polymer Analysis



Chromatography Lab

Failure Analysis

Routine Polymer Testing

**The Executive Committee Hosts the May Meeting**

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## Polymer Solutions



Since 1987, Polymer Solutions (PSI) has been answering difficult questions regarding polymers, plastics, and composites.

From our home in Christiansburg, Virginia, we partner with our clients from around the world to solve and prevent their most complex problems through chemical analysis, physical testing and consultation.

At Polymer Solutions, we believe the clearest path to a superior solution is an open mind. We've assembled an accomplished group of scientific thinkers and equipped them with a diverse array of advanced technology, allowing them to tackle any challenge from routine procedures to the most complex problem.

We are independent by design. Our test results reflect our best science and our love for solving problems. Our results are sound, objective, and sometimes even envied. In the past 27 years our testing capabilities have continued to evolve and expand. We offer analysis of metallic materials in addition to polymer materials. Our laboratory capabilities include chromatography, metals testing, microscopy, spectroscopy, wet chemistry, titrations, liquid chromatography, and gas chromatography.

In January 2015 our team completed our brand new, custom designed, state-of-the-art headquarters and laboratories. "[The Big Move](#)" (as our team dubbed it) represents our continuous improvement in all we do and it also speaks to the healthy growth trajectory of our company.

Our location is prime and strategic in many senses. We are in close proximity to the Virginia Tech Campus and situated in a strong technology community; simultaneously we are able to enjoy the natural beauty of the Blue Ridge Mountains. We are located only minutes off of Interstate 81, making visits to our facility easy and accessible. Thanks to FedEx and UPS, we are only "tomorrow" away from most clients in North America and the rest of the world is just a day or so away.

We firmly believe in working hard and also "playing" hard. At PSI we embrace life and enjoy our work.



## Coming Soon: National Chemistry Week (NCW)

October 19 – 25, 2015

Topic: Exploring the chemistry of dyes, pigments, & light  
Theme: "Chemistry Colors Our World!"



## ACS Science Coaches

Enrollment for the 2015-16 school year opens June 2015.

*What is an ACS Science Coach?*

ACS Science Coaches are chemistry professionals who share their expertise and enthusiasm for science with an elementary, middle, or high school teacher over the course of one school year. They enhance science education, and secure a \$500 donation for the school where they volunteer.

Chemistry graduate students, professionals and retirees volunteer to assist one teacher at least six times during one school year to improve the science education experiences of students.

*Why Should I Become a Science Coach?*

1. It's easy: Being a Science Coach invites the teacher to identify specific science-related projects, tasks, and questions for the chemist. There is no need to document visits, activities, or how the program donation was used.
2. Secure a donation for a local school: The American Chemical Society donates \$500 to participating schools in Science Coaches to use to enhance science education.
3. Establish credibility: Support from the American Chemical Society provides chemists with credibility when introduced to educators. Initially, school administrators may be skeptical of unknown community members who offer to interact with students. Through support from an established organization, school personnel are more likely to consider a chemist's offer to volunteer.

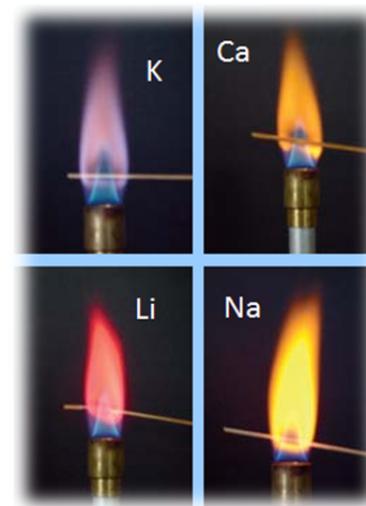
Learn more and sign up at

<http://www.acs.org/content/acs/en/education/outreach/science-coaches.html>

## Safety Alert from ACS

<http://www.acs.org/content/acs/en/about/governance/committees/chemicalsafety.html>

Stop Using the Rainbow Demonstration: The American Chemical Society Committee on Chemical Safety recommends that the “Rainbow” demonstration on open benches involving the use of flammable solvents such as methanol be discontinued immediately. When carried out on open benches (outside of a chemical hood) these demonstrations present an unacceptable risk of flash fires and deflagrations that can cause serious injuries to students and teachers. On an open bench, invisible flammable vapors can flow across and off of the bench to the floor where they can be ignited by a flame, a spark (even static electricity), or even a hot surface. Even carrying out this demonstration in a hood poses risks if solvents are not adequately controlled. If you are considering this “Rainbow” demonstration or have used it in the past, we urge you to stop using this demonstration. There are alternatives available that demonstrate the same rainbow colors but don't use flammable solvents on an open bench. These alternate demonstrations involve soaking wooden splints in salt solutions and then placing the splints in a Bunsen burner to observe the salt's characteristic color. In general, soak wood sticks in metal salt solutions (chlorides, NOT nitrates) and holding the sticks in a flame.



Robert H. Hill, Jr., Ph.D., Chair, ACS Committee on Chemical Safety

## Directions to Polymer Solutions Inc. *the map is from Google Maps*

*From I81 South:*

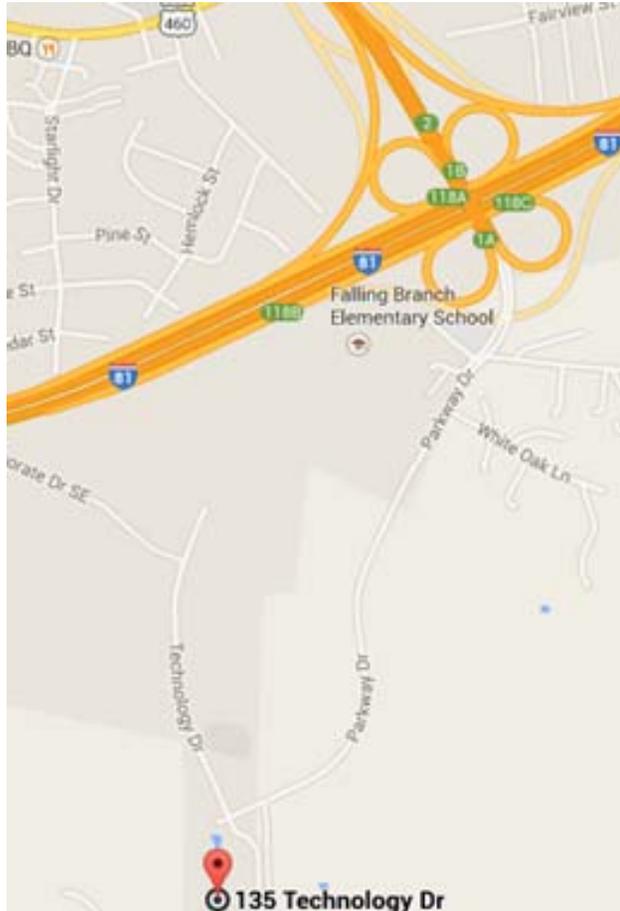
I-81 North to exit 118A to Parkway Drive/US 460 East  
Turn right on Parkway Dr.

*From I-81 North:*

I-81S to exit 118A onto Parkway Drive/US 460 East (about 30 mi.)

### **Then for both:**

Stay on Parkway Drive (about 1 mile) to a “T” shaped intersection;  
Go left onto Technology Dr.; polymer Solutions is at the end of the circle at  
the top of the hill. Find visitor parking in front.



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c/o Nancy Richardson , Editor  
for VA Blue Ridge Section, American Chemical Soc.  
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Liberty University  
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Lynchburg, VA 24515

Return Service Requested

The next meeting will be in September hosted by Virginia Tech with Charles Williams speaking on 3D printing.