# The Blue Ridge Chemist

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Roanoke College Hosts the February Meeting

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# VIRGINIA BLUE RIDGE SECTION AMERICAN CHEMICAL SOCIETY

## 683<sup>rd</sup> SECTION MEETING Roanoke College

Monday, February 20, 2017

#### **PROGRAM:**

5:30-6:00 Social Time, Pickle Lounge in the Colket Center 6:00-7:00 Dinner, Pickle Lounge 7:00-8:00 Talk, Massengill Auditorium

The dinner will take place in the Pickle Lounge of the Colket Center at Roanoke College. The talk will be in Massengill Auditorium. The speaker will be Dr. Carla Slebodnick of Virginia Tech. Her talk is "Crystallography: The Good, the Bad, and the Ugly."

For dinner, we will be going through the cafeteria line and bringing trays back to the Pickle Lounge. The usual menu includes two entrees, a salad bar, various sides and other items, with desserts and ice cream. Cost for the dinner will be \$14.00 with students and retired ACS members being half price.

Reservations for the dinner must be made by THURSDAY, FEBRUARY 16, (4 DAYS BEFORE THE MEETING) by contacting Debbie Duncan at 540-375-2441, or by e-mail to duncan@roanoke.edu, or by mail to Debbie Duncan, Department of Chemistry, Roanoke College, Salem, VA 24153.

#### Carla Slebodnick

## **Department of Chemistry, Virginia Tech**



Carla Slebodnick received her BS in Chemistry in 1990 from Carnegie Mellon University, where she studied synthetic coordination chemistry with Terry Collins. She then attended Northwestern University, where she worked on porphyrin chemistry (synthetic heme models) and crystallography with James Ibers. After earning her PhD in 1995, she spent three years as an NIH Postdoctoral Fellow with Vincent Pecoraro at the University of Michigan, working on synthetic models for vanadium haloperoxidases. Carla joined the faculty of the Chemistry Department at Virginia Tech in 1998. Together with colleagues in the GeoSciences department, she founded the Virginia Tech Crystallography Laboratory (VTX), of which she is now co-director. She also teaches a two-semester graduate sequence in X-ray crystallography while managing the small-molecule X-ray service center.

### Crystallography: The Good, the Bad, and the Ugly

Crystallography is considered the "gold standard" technique for determining the three-dimensional structure of a solid. The technique is useful for many different types of substances, from molecular compounds and minerals to proteins and synthetic polymers. The 2009 Nobel Prize was awarded to three scientists who determined the structure of the ribosome using crystallographic methods, and the United Nations General Assembly named 2014 the International Year of Crystallography. However, as science has become more specialized and X-ray diffraction instrumentation more commonplace, crystallography has become something of a "black box" not only to chemists seeking structural characterization of new substances, but also to manuscript reviewers and journal editors. This trend has unfortunately led to the publication of questionable science. This lecture will review some of the ethical issues facing the crystallographic community, illustrated with specific examples drawn from the peer-reviewed literature.



Page 3

### **Annual Undergraduate/High School Poster Session**

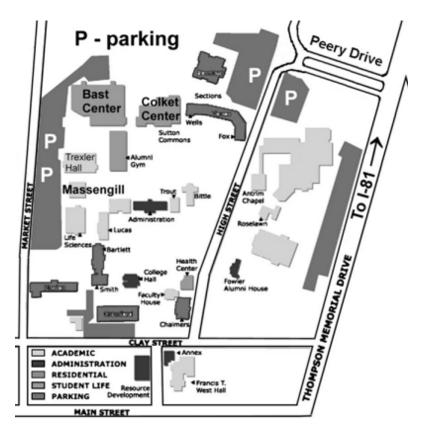
As a part of the April 10, 2017 meeting at Radford University, the Virginia Blue Ridge Section of the American Chemical Society is sponsoring the twenty-sixth Annual Undergraduate/High School Poster Session. Note that poster boards will be provided.

If you have a student or students, who will be participating, submit the following information by email to Chris Hermann (chermann@radford.edu) by April 3, 2017. **This is a firm deadline. No poster submissions will be accepted after this time.** All students and faculty will get email confirmation. If you did not get an email reply, then your submission was not received and you cannot present.

Name of Project
Name(s) of Student(s):
Affiliation (name of high school, college, or university):
Class of Student(s) (freshman, sophomore, junior, senior):
Student(s) email address:
Advisor's Name, Address, Telephone Number, and email
address:
48" by 48" poster board with tripod on table or just table will be provided
Please specify what you need.
poster board with tripod on table
table needed

## **Directions to Roanoke College**

From I-81 take exit 140 (Route 311) and go south into Salem, on Thompson Memorial Drive. Turn right onto Peery Drive to enter the campus. You may park in one of the lots ahead, which are near the Colket Center, or you may take High Street, Clay Street, and Market Street to park near Massengill. For disability access routes, please contact Ben Huddle or Gary Hollis. The talk is in Massengill Auditorium, with the dinner in the Pickle Lounge of the Colket Center.



**Map of Roanoke College**