

THE BLUE RIDGE CHEMIST

Since 1947 the Official Local Section Publication of the Virginia Blue Ridge Section, American Chemical Society

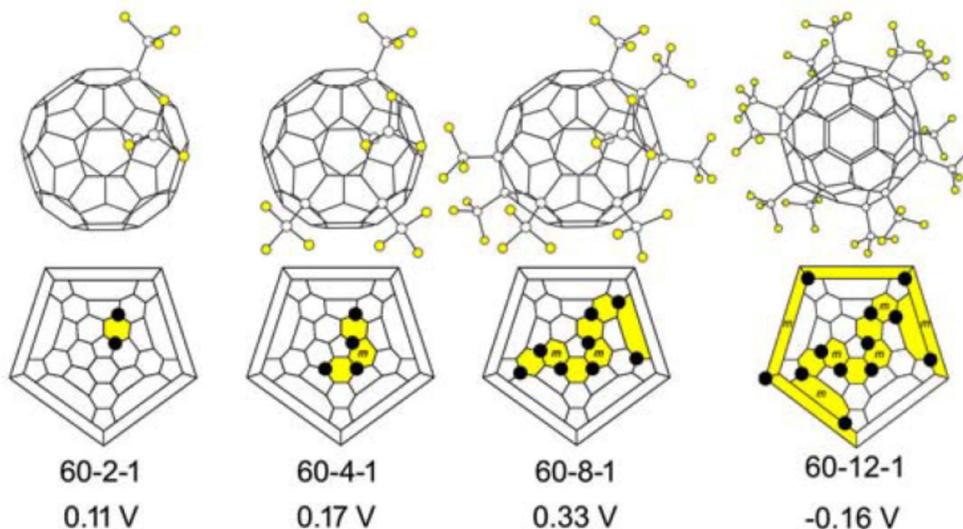
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Hollins University Hosts the March Meeting



fullerene-based organic electronic materials

Meeting Information

- 718th Meeting of the Virginia Blue Ridge Section, American Chemical Society.
- Prof. Brian Reeves will speak on fluorinated organic electronic materials.

Agenda for Thursday, March 20, 2024

- 5:30 PM Meet and greet, Private Dining Room, Moody Center
- 6:00 PM Dinner, Private Dining Room, Moody Center
 - **Those coming for dinner please RSVP before noon on Tuesday Mar 18** by sending email to Dan Derringer (dderringer@hollins.edu). Dinner is \$10 for members and \$5 for students.
- 6:45 PM to 7:30 PM Presentation by Dr. Reeves, Moody Center

Keynote Speaker: Brian Reeves

Brian completed his BS in Chemistry at James Madison University in 2014. At JMU, Brian conducted research with Brycelyn M. Boardman studying cobalt chalcogenide clusters with thienyl phosphine ligands. Brian then attended Colorado State University and earned his Ph.D. in Materials Chemistry under the direction of Steven H. Strauss and Olga V. Boltalina. Brian synthesized fluorinated polycyclic aromatic hydrocarbons, homoleptic copper(I) complexes, and fullerenes for use in organic electronic devices. His current work is focused on synthesizing heteroleptic copper(I) complexes for use in OLEDs and hybrid nanosheets for use in flexible solar cells. Outside of the lab and the classroom, Brian enjoys fly fishing and spending time with his family.



Functional Fluorinated Materials for Organic Electronics

Abstract: Organic photovoltaic (OPV) devices and organic light emitting diodes (OLED) have shown significant promise as cost-effective alternatives to their inorganic counterparts. Within the OLED field, there is currently an effort to replace iridium(III) sensitizers with cheaper and more earth-abundant copper(I) alternatives. One issue that needs to be overcome is the Jahn-Teller distortion in copper(I) complexes, a major quenching pathway. Several trifluoromethyl-substituted phenanthrolines (at right in Figure 1) were synthesized to overcome this problem. In OPVs, there is a distinct need to test new acceptor materials to improve device performance empirically. A series of thermally robust fluorinated fullerene acceptors (at left in Figure 1) with experimental gas-phase electron affinities ranging from 2.8 to 3.3 eV were paired with a new (dicyanovinyl)thiophene-based donor to enable direct evaluation of acceptor performance in typical OPV cell configurations. Useful insights into the role of the acceptor intrinsic molecular and electronic structures will be discussed in this presentation.

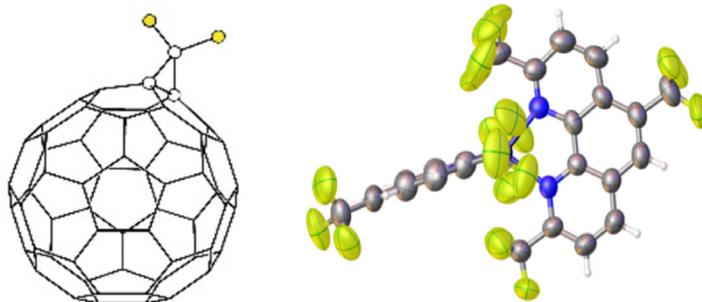


Figure 1. Fluorinated compounds with potential applications in electronic devices.

VBRS Elections

Members of VBRS have already received an email message with the opportunity to vote in our annual election of officers. Please reach out to Paul Deck (pdeck@vt.edu) if you did not receive a message with a link to the ballot. The poll closes on Wednesday, March 18, at 11:00 pm. The slate of candidates is as follows:

- **Chair-Elect** – We were unable to identify a candidate for Chair-Elect. One will be appointed by the new Executive Council after the election is concluded.
- **Secretary** – Paul Deck (Virginia Tech) or write-in
- **Treasurer** – Owen W. Lofthus (Virginia Western CC) or write-in
- **Councilor** – Gary Hollis, Roanoke College or write-in
- **Alternate Councilor** – Jason Crumpton, University of Lynchburg or write-in

Gary Hollis (Roanoke College) was elected Chair-Elect for 2024 and will assume the position of Chair in 2025. Dave Hobart (University of Lynchburg) was elected Chair-Elect for 2023, served as Chair in 2024, and will assume the position of Past Chair in 2025.

In Memoriam

Steve Smith was a longtime member of VBRS who served the Section as Treasurer for several years. He was also a beloved and respected chemistry teacher at the Roanoke Valley Governor's School. Steve died peacefully at home on January 3, 2025, at the age of 66. Among Steve's many awards were the Outstanding High School Teacher Award of the Virginia Blue Ridge Section of the American Chemical Society and the Outstanding Chemistry Teacher award from the Virginia Association of Science Teachers (VAST).

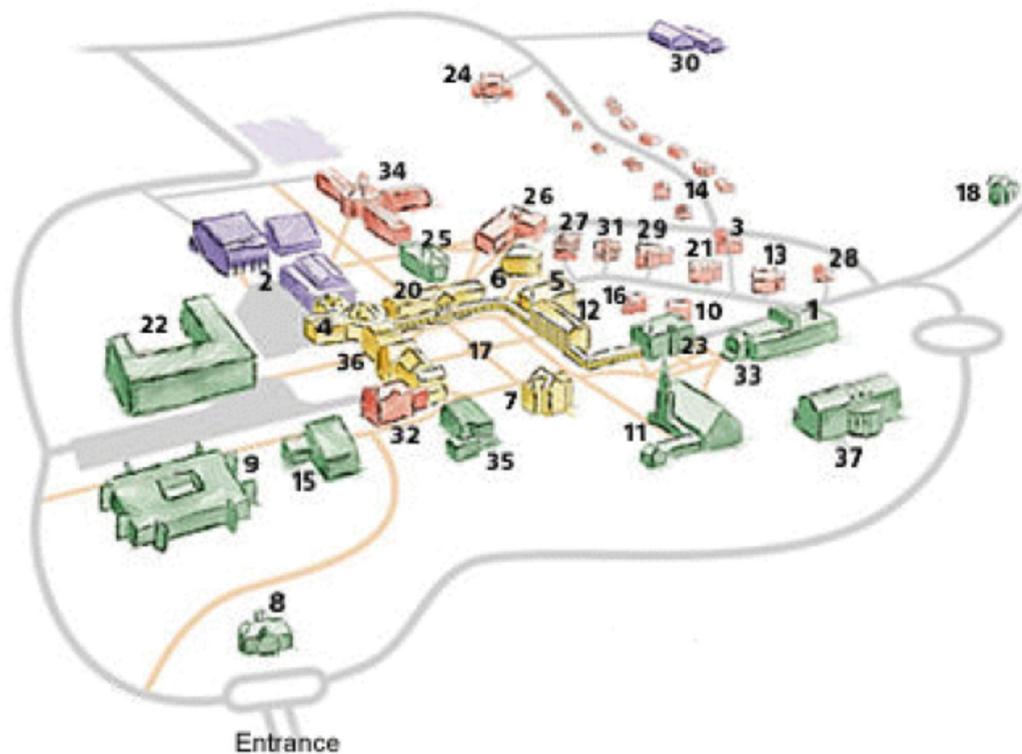
A full obituary is available at the website of Simpson Funeral Home, which cared for Steve's family after his death: <https://www.simpsonfuneral.com/obituaries/Stephen-Donald-Smith?obId=34284154>



Steve Smith

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 Private Dining Room of the Moody Center (Building #22)



Virginia Blue Ridge Section of the American Chemical Society

Undergraduate and High School Poster Submission Form

As part of the April 11, 2025, meeting at Radford University, the Virginia Blue Ridge Section of the American Chemical Society is sponsoring the 30th Annual Undergraduate/High School Poster Session. Note that poster boards will be provided.

If you have a student or students who will be participating, please submit the following information by email to Dr. Christine Hermann (chermann@radford.edu) by April 01, 2025. This is a firm deadline. No submissions will be accepted after this date. All students and faculty will receive 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): _____

Mark each student above with their class: Freshman (1), Sophomore (2), Junior (3), Senior (4)

Affiliation (name of school or institution): _____

Student(s) email address: _____

Advisor's Name: _____

Advisor's Mailing Address: _____

Advisor's Telephone Number: _____

Advisor's Email Address: _____

48" by 36" poster board on a tripod or on a table will be provided. Please specify what you need.

_____ poster board with tripod _____ table needed

All poster presenters will be included in the list for the meal (heavy hors d'oeuvres will be served during the Social Hour, see below). Please list any other faculty, parents, friends, or other students that will be coming to the poster session as your guest(s). We need to get an accurate count for catering.

Meeting Schedule: 5:00 – 5:30 pm: Poster setup 5:30 – 6:45 pm: Social hour/poster session
 7:00 – 7:15 pm: Awards 7:15 – 8:15 pm: Keynote presentation

The poster session will take place in the Main Street Lobby of Center for the Sciences. The awards ceremony and keynote presentation will take place in adjacent Room M73, Center for the Sciences.

If you are scanning this form, please make sure the scan is legible.