

The Blue Ridge Chemist

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



VOLUME LXXI

September 26, 2018

No. 6



Roanoke College Hosts the September Meeting

<http://www.acs-vbrs.org>

The Blue Ridge Chemist 2018, 71(6), 1-5.

VIRGINIA BLUE RIDGE SECTION

AMERICAN CHEMICAL SOCIETY

695th SECTION MEETING

Roanoke College, Salem, Virginia

Wednesday, September 26, 2018

PROGRAM:

5:30 PM – Social Time – Pickle Lounge – Colket Center

6:00 PM to 7:00 PM – Dinner in the Colket Center

7:00 PM – Lecture – Massengill Auditorium

The social time and 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 Prof. Robert B. Moore of the Chemistry Department and Macromolecules Innovation Institute at Virginia Tech.

For dinner we will be going through the cafeteria line and bringing our 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 \$10.00 for everyone. Reservations for the dinner must be made by Monday Sep 24, two 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, Dept. of Chemistry, Roanoke College, Salem, VA 24153.

Front Cover: Prof. Robert Moore in his laboratory with a small-angle X-ray scattering (SAXS) instrument in the foreground. Prof. Moore is known internationally for his contributions to the use of SAXS and other experimental techniques in probing essential relationships among polymer morphology and physical properties.



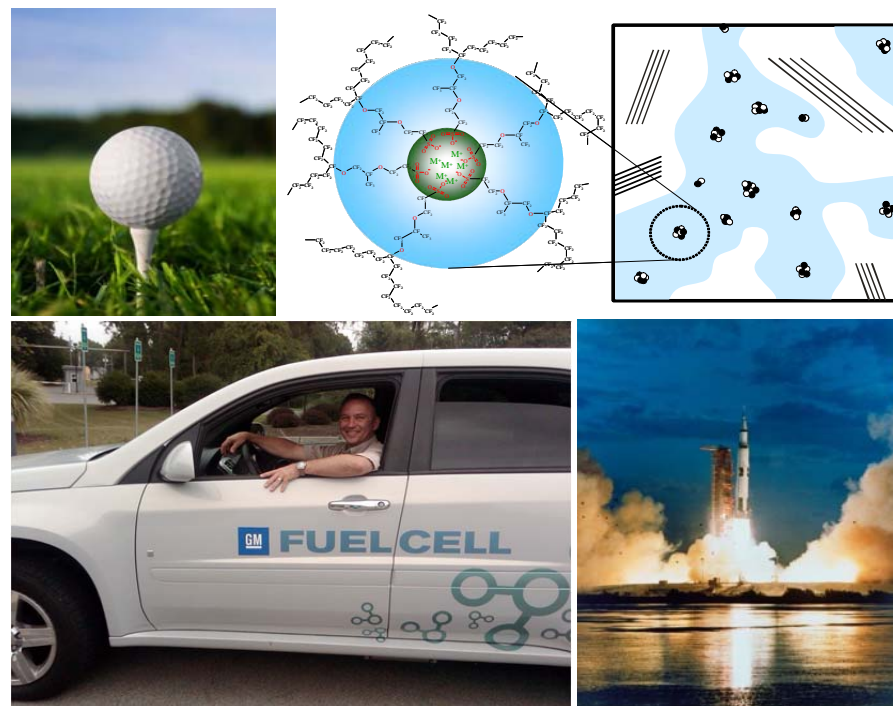
Bob Moore
Professor of Chemistry
Virginia Tech

Robert B. Moore is the Director of the Macromolecular Science and Engineering (MACR) graduate degree program and Professor of Chemistry at Virginia Tech. Moore received his Ph.D. in Analytical Chemistry from Texas A&M University in 1988, followed by a postdoctoral fellowship at McGill University in Montreal, Quebec. In 1991, he joined the faculty of the Department of Polymer Science at The University of Southern Mississippi, where he served for 17 years before moving to Virginia Tech in 2007.

Research in the Moore group is focused on processing-morphology-property relationships of functionalized, semi-crystalline polymers (specifically ionomers) to understand the role of specific interactions in morphological development. Moore and his students are actively involved in discovery and development of new polymeric materials for applications in proton exchange membrane fuel cells, thermo-reversible gels, and nanostructured materials for energy storage and conversion. In warmer months, Moore enjoys riding his Harley-Davidson motorcycle through our area's picturesque byways.

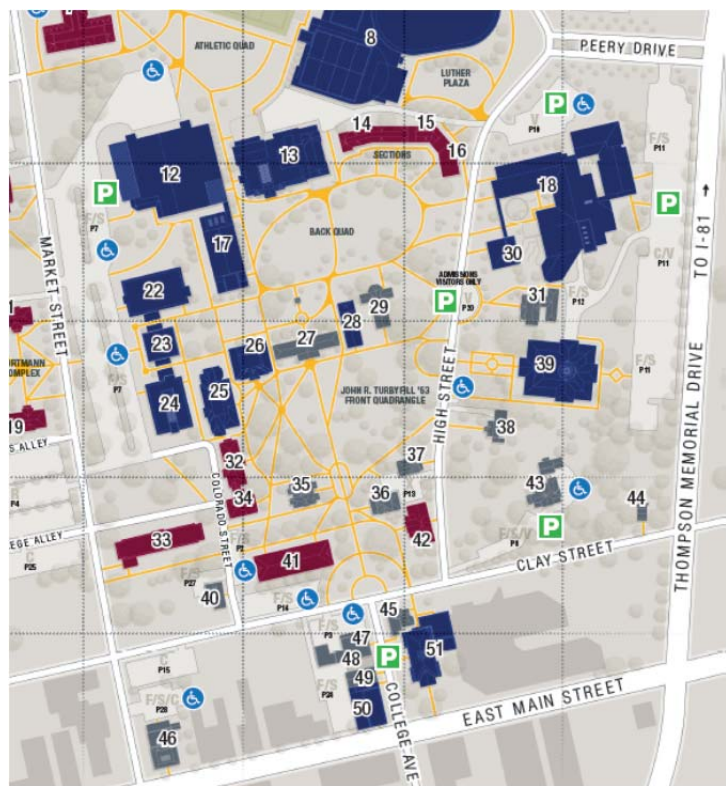
Charged-Up Polymers: Advanced Materials for Sports to Space

The physical and chemical properties of polymers can be profoundly altered by covalently attaching just a few ionic (“charged”) groups along the chains. These ion-containing polymers, commonly referred to as ionomers, are used in a diverse spectrum of applications ranging from impact-resistant golf ball covers to proton exchange membrane fuel cells for transportation in energy-efficient cars and in space vehicles. In this presentation, we will explore how the unique morphology-property relationships of ionomers transform common polymers (e.g., polyethylene, polystyrene, PTFE, etc.) into materials needed to meet the modern demands of durable products in sport equipment, water purification, next-generation automobiles, and space-age energy conversion devices. The presentation will focus on advances in synthesis, processing, and characterization of ionomers using state-of-the-art tools, with specific attention on controlling physical structure (morphology) on nanometer length scales.



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 the lot to your left, or you may take High Street, Clay Street, and Market Street to park near Massengill, Building No. 23. For disability access routes, please contact Gary Hollis. The talk is in Massengill Auditorium, with the dinner in the Pickle Lounge of the Colket Center, Building 13. (For reference, the Chemistry Department is in Trexler Hall, Building No. 22.)



Our October (National Chemistry Week) meeting will be at VT on Monday the 22nd and will feature a presentation by Sarah Hiza (a VT alumna, now with Lockheed-Martin) on applications of chemistry in rocket propulsion and space science.