American Chemical Society
Susquehanna Valley Section

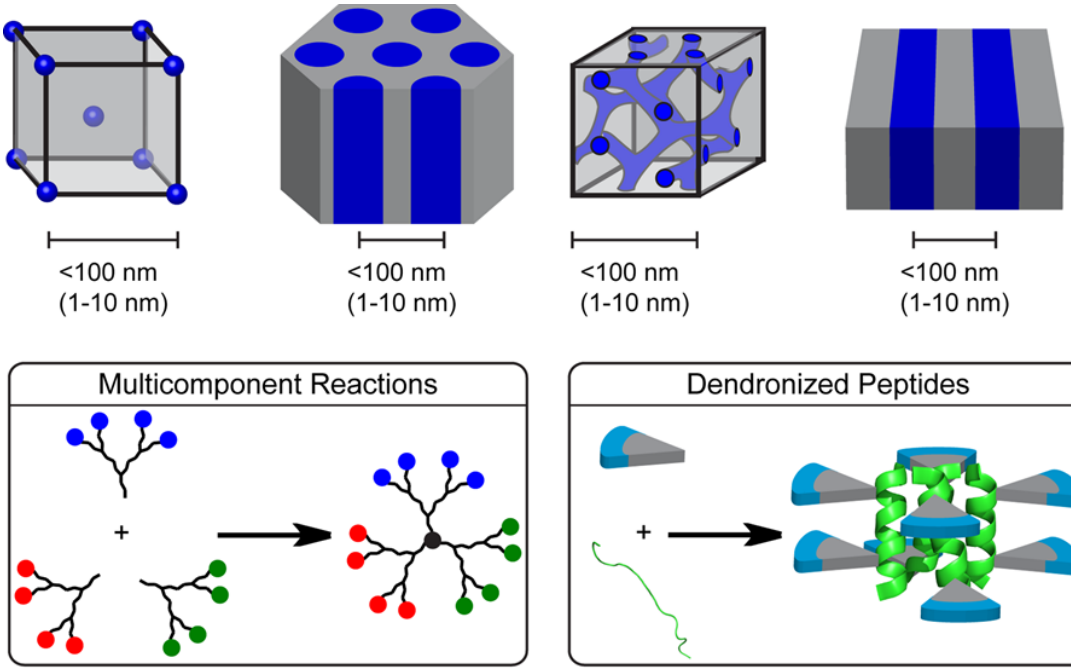
OCTOBER 2016 NEWSLETTER

The four hundred and thirty third meeting of the American Chemical Society, Susquehanna Valley Section will be held on Thursday, October 6, 2016 at 7:00 pm in room 166 in the Stark Learning Center on the Wilkes University campus in Wilkes-Barre, PA. The speaker will be Jonathan G. Rudick, Ph. D., Associate Professor of Chemistry at Stony Brook University. The talk will be preceded by a dinner at 5:30 pm in room 102 in the adjacent Cohen Science Center.

"*Programming Hierarchical Structures through Precision Macromolecular Synthesis*"

Dr. Jonathan G. Rudick
Department of Chemistry
Stony Brook University
Stony Brook, NY

Polymers have familiar uses as structural materials (i.e., plastics) and as additives in consumer products, paints, foods, etc. To meet the requirements of these diverse applications, multifunctional polymers combine properties from several different polymers in a single material. Most polymers can only be prepared as heterogeneous mixtures of polymer molecules with different sizes that complicate structure-property relationships in these materials. Multifunctional polymers have additional heterogeneity related to the extent to which and order in which each of the constituent monomers are incorporated in the polymer molecule. Individual components in the mixture can have unique properties that are masked by the ensemble. Macromolecules that have a single composition (i.e., monodisperse polymers) avoid the complications of heterogeneous mixtures and yield precise structure-property relationships. Dendrimers are monodisperse polymers composed of branched repeating units that emanate from a branched core. Studies of dendrimers have broad implications as the resulting structure-activity relationships can guide the design of less well-defined materials (e.g., hyperbranched polymers) that are more commonly used in commercial products. Like other monodisperse polymers, multifunctional dendrimers are prepared through long, labor-intensive syntheses. High costs, slow progress, and poor overall yields that accompany lengthy synthesis campaigns set high risks against materials with as-yet unknown rewards. This presentation will discuss strategies that mitigate the synthetic complexity required to prepare structurally perfect multifunctional polymers, and will illustrate the application of those strategies to materials that exhibit liquid crystalline properties.



Dr. Jonathan Rudick is an Associate Professor of Chemistry at Stony Brook University. He received his B.S. in chemistry from Case Western Reserve University in 2000, and his Ph.D. in chemistry with Virgil Percec from the University of Pennsylvania in 2005. He spent two years as a scientist at Procter & Gamble, before undertaking postdoctoral training with William F. DeGrado at the University of Pennsylvania. Since 2010, Jon has established a research program to develop well-defined materials from which we can gain a fundamental understanding of molecular organization in nanosegregated materials. Jon received a CAREER Award from the National Science Foundation in 2013.

DINNER: The lecture will be preceded by dinner at 5:30 PM in room 102 in the Cohen Science Center. Dinner will be buffet style, including a vegetarian option and dessert. The cost will be $15.00 per person, payable at the dinner. Please RSVP by noon on Monday, Oct. 3 to Gennie Singer by email <genevieve.singer@wilkes.edu> or phone (570.408.4750).

DIRECTIONS TO WILKES UNIVERSITY:

Detailed directions can be found at
http://www.wilkes.edu/about-wilkes/campus/directions-to-campus.aspx

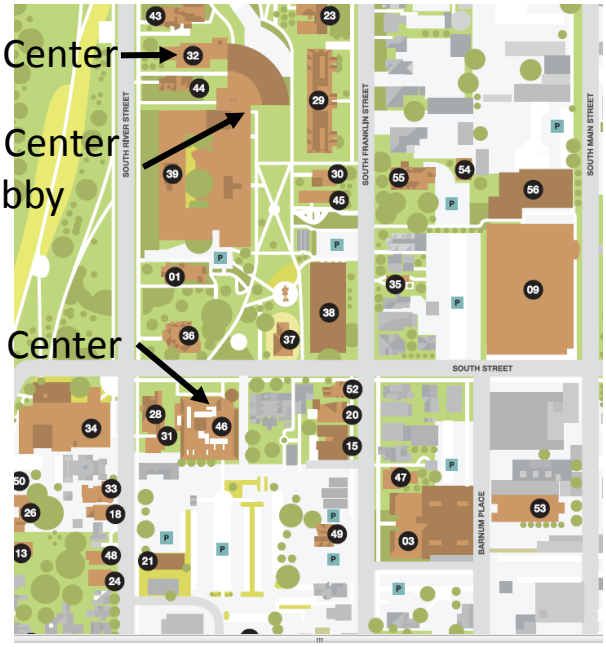
An interactive map of the campus can be found at:
http://www.wilkes.edu/about-wilkes/campus/map/index.aspx

Take Exit 3 (River Street Exit), from PA Route 309N then make a left at traffic light. You are now on River Street. Immediately after turning left onto River Street you will encounter the first of 9 traffic lights. Continue on River Street to the 9th light where you will turn left (east) onto South Street. The Henry Student Center will be the second building on your right. Immediately to the left of the building (just after the crosswalk) is a driveway that leads to a parking lot.

32 Cohen Science Center

39 Stark Learning Center
Auditorium/Lobby

46 Henry Student Center



The full map above can be found at
http://www.wilkes.edu/about-wilkes/campus/map/_images/map11x17-2015.pdf

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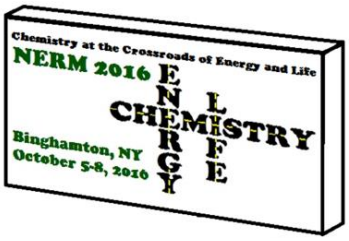
SECTION NEWS:

2017 LOCAL SECTION ELECTIONS:
Nominations, including self-nominations, are due for the position of Chair-elect prior to the October meeting. Voting will take place in November. If interested, please contact Dr. Ron Supkowski at ronaldsupkowski@kings.edu or 570-208-5900x5733.

NERM 2016:



The 41st NERM is scheduled for October 5-8, 2016 and is being hosted by the Binghamton Section of the American Chemical Society. It will be held in downtown Binghamton, NY. Register for reduced hotel rates by September 5; see their website for more details.

MARM 2017:

The Susquehanna Valley Section is co-hosting MARM 2017 with the Lehigh Valley Section. It will be held June 4-6, 2017 at the Hershey Lodge in Hershey, PA. Interested symposia organizers should contact the program chair, David Rovnyak. For other volunteer opportunities and questions, please contact the meeting co-chair, Dee Casteel.

NATIONAL CHEMISTRY WEEK: October 16 –22, 2016

The Susquehanna Valley Section is once again collecting posters for this year's event. If you know of a student in K-12 who would like to participate please contact Patrick Martino at patrick.martino@bucknell.edu. The deadline for submissions is Friday. October 28. For further details, see the website:

NATIONAL ACS NEWS:

ACT4CHEMISTRY:

Legislation that may impact the chemical enterprise comes before Congress on a regular basis, and the ACS is committed to keeping its members informed and encouraging them to weigh in on high-priority issues. One of the main ways the ACS does this is through Act4Chemistry. To learn more please visit their website or email advocacy@acs.org.

NATIONAL MEETINGS:

The 2017 spring national meeting will be held in San Francisco, California from April 2-6. A call for papers has been opened with most divisions having a deadline of Monday, Oct. 31. See the website for further details.

Susquehanna Valley Section Web Page: http://departments.kings.edu/SusquehannaValleyACS

Please send any comments about the monthly newsletter to Ron Supkowski, Section Secretary
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