



American Chemical Society Susquehanna Valley Section

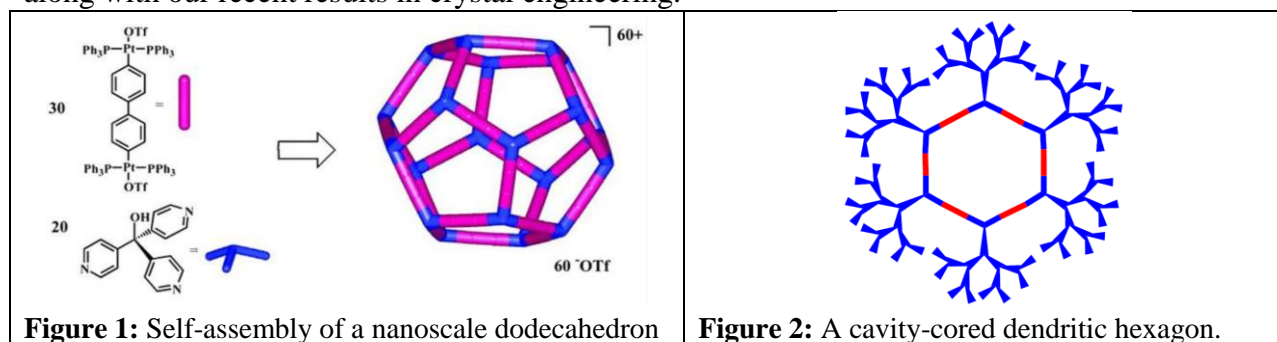
OCTOBER 2015 NEWSLETTER

The four hundred and twenty sixth meeting of the American Chemical Society, Susquehanna Valley Section will be the fifth annual [Wilkes University Catherine Bone Lecture](#). It will be held on Wednesday, October 21st, 2015 in Room 101 of the Stark Learning Center on the Wilkes University campus. The meeting will begin at 7:00 PM and will be followed by a reception. A dinner precedes the meeting at 5:30 PM. The speaker will be Dr. Peter J. Stang of The University of Utah.

“Abiological Self-Assembly: Predesigned Metallacycles and Metallacages via Coordination”

Dr. Peter J. Stang
Department of Chemistry
The University of Utah
Salt Lake City, UT

The use of just two types of building blocks, linear and angular, in conjunction with symmetry considerations allows the rational design of a wide range of metallocyclic polygons and polyhedra via the coordination motif.¹⁻³ We have used this approach to self-assemble a variety of 2D supramolecular polygons such as triangles, rectangles, squares, hexagons, etc. as well as a number of 3D supramolecular polyhedra: truncated tetrahedra, trigonal prisms, cubooctahedra⁴ and dodecahedra.⁵ An example of the methodology is illustrated in Figure 1. More recently we have functionalized these rigid supramolecular scaffolds with different electroactive, host-guest, dendritic (Figure 2), and hydrophobic/hydrophilic moieties and have investigated the properties of these multifunctionalized supramolecular species.⁶ Additionally, we have begun to explore the self-assembly of 2D polygons and 3D polyhedra on a variety of surfaces with the aim of developing their potential to be used in device settings.⁷⁻¹⁰ These novel, supramolecular ensembles are characterized by physical and spectral means. The design strategy, formation, characterization and potential uses of these novel metallocyclic assemblies will be discussed, along with our recent results in crystal engineering.



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3. P. J. Stang, B. Olenyuk, *Acc. Chem. Res.*, *20*, 502-518 (1997).
4. B. Olenyuk, J. A. Whiteford, A. Fechtenkötter, P. J. Stang, *Nature*, *398*, 796-799 (1999).
5. B. Olenyuk, M. D. Levin, J. A. Whiteford, J. E. Shield, P. J. Stang, *J. Am. Chem. Soc.*, *121*, 10434-10435 (1999).
6. B.H. Northrop, H.B. Yang, P.J. Stang, *Chem. Comm.* 5896-5908 (2008).
7. S.S. Li; B.H. Northrop, Q.H. Yuan, L.J. Wan, P.J. Stang, *Acc. Chem. Res.*, *42*, 249-259 (2009).
8. R. Chakrabarty, P. S. Mukherjee, P. J. Stang, *Chem. Rev.*, *111*, 6810-6918 (2011).
9. T. R. Cook, Y.-R. Zheng, P.J. Stang, *Chem. Rev.*, *113*, 734-777 (2013).
10. T.R. Cook, V. Vajpayee, M. H. Lee, P. J. Stang, K.-W. Chi, *Acc. Chem. Res.*, *46*, 2464-2474 (2013).

Dr. Stang is a Distinguished Professor and David P. Gardner Presidential Chair in the Department of Chemistry at the University of Utah. He has been recognized with many awards including the premier award of the American Chemical Society, the Priestly Medal (in 2013). Other recognition includes the National Medal of Science (2011), F.A. Cotton Medal for Excellence in Chemical Research (2010), Fred Basolo Medal for Outstanding Research in Inorganic Chemistry (2009), Linus Pauling Medal (2006), and many others. He has served as Editor for the Journal of the American Chemical Society (JACS) since 2002 and as Associate Editor from 1982 – 1999. He has served on numerous committees and boards and is a recognized leader in the research of self-assembled systems. Dr. Stang is the author or co-author of over 517 scientific publications, including seven monographs and two dozen reviews. He has mentored 59 Postdoctoral Associates; 37 students have obtained Ph.D. degrees and 7 students have received M.S. degrees under his direction.

DINNER: The lecture will be preceded by dinner at 5:30 PM in room 102 of 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 Tuesday, 13 Oct. 2015 to Gennie Singer by email <genevieve.singer@wilkes.edu> or phone (570.408.4750).

DIRECTIONS TO WILKES UNIVERSITY:

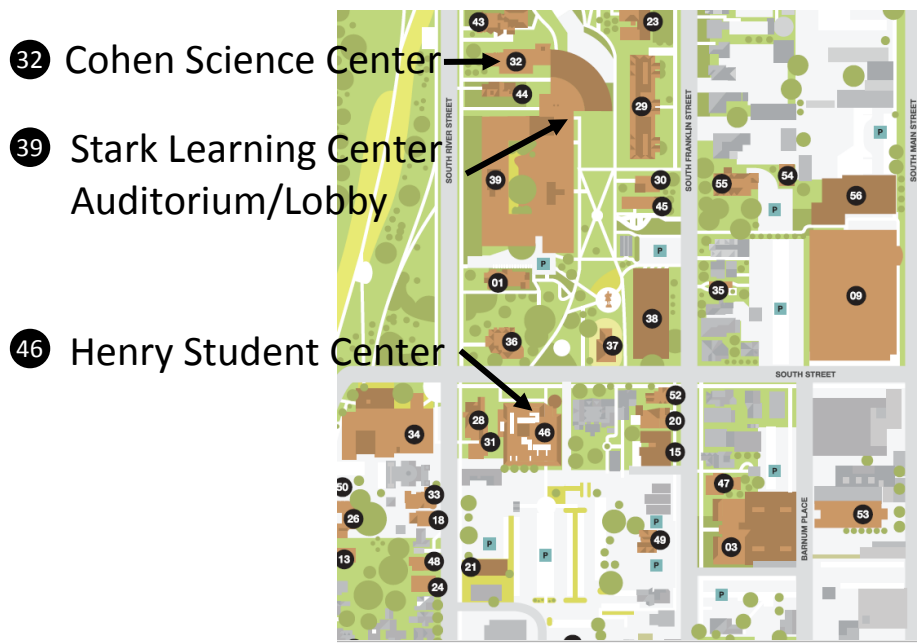
Detailed directions can be found at

<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.



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

SECTION NEWS:

2016 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. James Swan at swan@bucknell.edu or 570.577.3671.

MARM 2016:

The 44th MARM is scheduled for June 9-12, 2016 and is being hosted by the New York Section of the American Chemical Society. It will be held at the College of Mount Saint Vincent, Riverdale, NY. Many of the sessions have been planned and listed; see their website for more details: <http://marmacs.org/2016/>

NATIONAL CHEMISTRY WEEK: October 18 –24, 2015

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 see the website:

<http://departments.kings.edu/SusquehannaValleyACS/services/NCW.html>

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

Please send any comments about the monthly newsletter to Ron Supkowski, Section Secretary
 King's College 131 N River St Wilkes-Barre PA 18711 ronaldsupkowski@kings.edu