



American Chemical Society Susquehanna Valley Section

MARCH 2013 NEWSLETTER

The four hundred and eighth meeting of the American Chemical Society Susquehanna Valley Section will be held on Wednesday, March 13, 2013 in the Snyder Room on the third floor of the Sheehy-Farmer Campus Center on the King's College campus in Wilkes-Barre, PA. The meeting will begin at 7:15 PM and will be preceded by a reception and dinner starting at 5:30 PM. The speaker will be Dr. Jared J. Paul from Villanova University.

"Acid/Base and Electronic Properties of Ruthenium Complexes with Hydroxyl-Substituted-Polypyridyl Ligands"

Jared J. Paul, Ph.D.
Assistant Professor
Department of Chemistry
Villanova University

Electron transfer events are frequently found coupled to proton transfer in both biological and chemical systems. This phenomenon is called Proton Coupled Electron Transfer and is critical to the proper functioning of these systems. Our laboratory is interested in studying the effects that protonation state can have on electronic properties utilizing metal complexes. We have synthesized several ruthenium polypyridyl complexes with hydroxyl groups substituted in different positions on the pyridine rings. The hydroxyl groups can be readily deprotonated altering the UV/Visible absorption and emission properties of the complexes. In addition, the reduction potentials of the complexes are greatly affected by the protonation state of the metal complexes. This talk will begin with an introduction to Photosystem II, a major component of the photosynthetic apparatus in plants and how electron transfer is coupled to proton transfer in this system. Then, the talk will highlight several of the complexes that have been synthesized in the Paul laboratory and compare their absorbance, emission, and electrochemical properties as a function of protonation state.

Jared Paul earned his B.S. in chemistry with honors in 2000 from Canisius College in Buffalo, NY. It was working as an undergraduate student under the direction of Dr. Mariusz Kozik that Jared was first exposed to research that would shape his ultimate goal of teaching and carrying out research with students at the undergraduate level. From there, he attended the University of North Carolina at Chapel Hill where he earned his Ph.D. in inorganic chemistry under the direction of Dr. H. Holden Thorp in 2005. He then worked for Dr. Thomas J. Meyer at the University of North Carolina at Chapel Hill as a postdoctoral research associate. In 2008, Jared was hired as an assistant professor at Villanova University. He has taught several courses at Villanova including Inorganic Chemistry, Bioinorganic Chemistry, and Physical Methods in Inorganic Chemistry, as well as many laboratory course offerings. Jared's primary research interests are the study of how the electronic properties of metal complexes can be influenced by ligands with multiple protonation states. Jared has worked with 18 undergraduate and master's level students during his five years at Villanova and is currently funded by the American Chemical Society Petroleum Research Fund.

DINNER:

Dinner will begin at 5:30 PM. The menu selections are a choice of chicken marsala or stuffed portabella mushroom. The cost will be \$13.00 per person. Those interested in attending the dinner please contact Ron Supkowski with your dinner choice at 570-208-5900 x5733 or ronaldsupkowski@kings.edu before Friday, March 8, 2013.

DIRECTIONS TO THE SHEEHY-FARMER CAMPUS CENTER

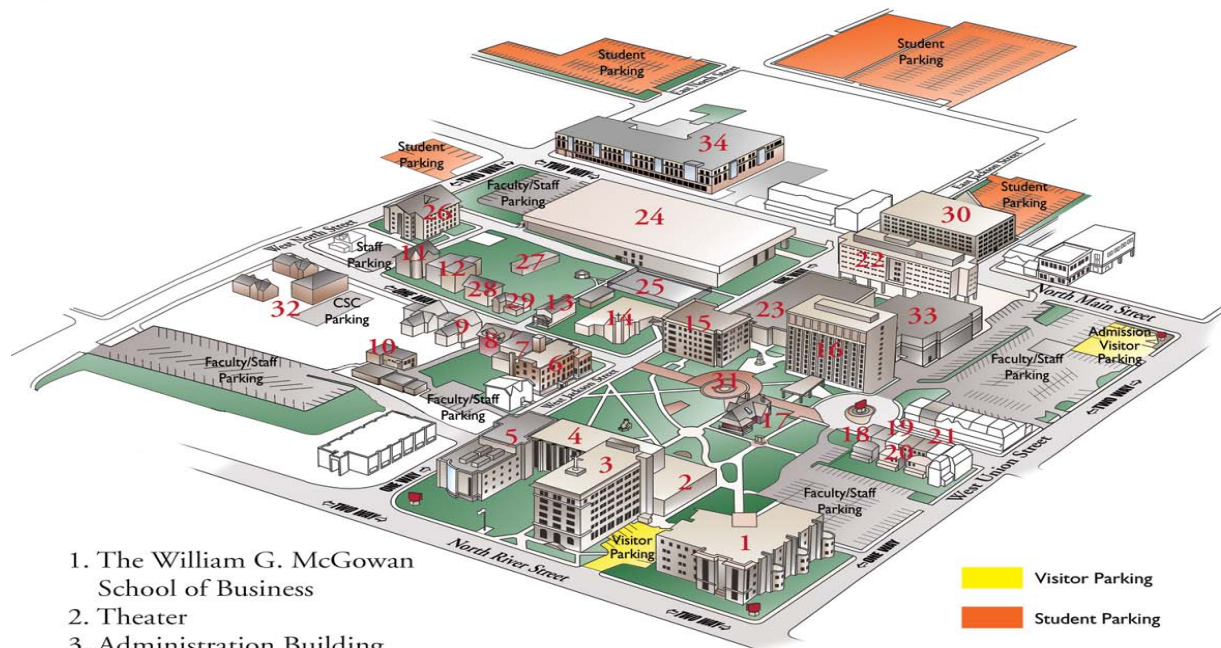
- From Route I-81, take Exit 170B (formerly Exit 47B) which will put you on Route 309 North.
- Follow Route 309 to exit 3 (Wilkes-Barre/Plains).
- Turn left off the exit ramp onto North River Street. Proceed about 1.5 miles, and you will see the Luzerne County Courthouse on your right. Continue through the light at the courthouse.

- Turn left at the next street, West Jackson Street. There is no traffic light at West Jackson Street, so do not go as far as the next light.
- Go through the stop sign and at the first traffic light, turn right onto North Main Street.
- Turn right at the next light onto West Union Street.
- About halfway down the block on your right you will see the entrance to a parking lot. Enter the paved lot where the gate is raised.
- As you pull into this lot, you are looking at the back of the Sheehy-Farmer Campus Center, where your event is being held. It is a three-story building. You can walk to the front of the Campus Center by following the lane that runs along the left-hand side of the building (lights line the walkway).
- Your event is taking place on the 3rd floor of the Sheehy-Farmer Campus Center. The elevator is around the corner to your left after you enter the building, past the stairwell and large painting.

For additional directions, visit <http://www.kings.edu/aboutkings/resources/directions>

KING'S COLLEGE

WILKES-BARRE, PENNSYLVANIA



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| <ol style="list-style-type: none"> 1. The William G. McGowan School of Business 2. Theater 3. Administration Building 4. Mulligan Physical Science Center 5. Charles E. & Mary Parente Life Sciences Center 6. Luksic Hall 7. John J. Lane House 8. Kilburn House 9. Benaglia Hall 10. Environmental Studies 11. Intern Housing 12. Holy Cross Community/ Student Housing 13. Sherrer House 14. J. Carroll McCormick Campus Ministry Center (Chapel) 15. Hafey-Marian Hall 16. Holy Cross Hall 17. Hessel Hall | <ol style="list-style-type: none"> 18. Athletic Recruitment Center 19. Study Abroad and Honors Program 20. College Offices 21. College Offices 22. Esseff Hall 23. D. Leonard Corgan Library 24. Scandlon Physical Education Center 25. Basketball Court 26. Flood Hall 27. Maintenance 28. Human Resources 29. Storage Facility 30. Alumni Hall 31. Monarch Court 32. Moreau Court 33. Sheehy-Farmer Campus Center 34. Gateway Corners |
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