

Synthesis, Electrochemistry and Spectroelectrochemistry of ruthenium nitrosyl Schiff base complexes

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**Chemistry
Seminar on
*ruthenium nitrosyl
complexes***

**Monday
March 3 at 4
pm in 126
Schrenk**

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Abstract: The management of nitric oxide in biological systems continues to be an area of intense interest for biochemists, especially with the realization that NO can react with reducing agents such as ascorbic acid under physiological conditions to produce HNO. Both NO and HNO are important signaling molecules in mammalian physiology. Recently there has been interest in nitric oxide complexes of ruthenium as an NO delivery vector. Under aqueous conditions, Ru-NO complexes give up NO after reduction at various rates. Under non-aqueous conditions, we have observed a far greater tendency for the NO ligand to remain bound to the Ru atom in both porphyrin and non-porphyrin systems. In this talk, our recent work with the synthesis and electrochemistry of Ru-NO systems bearing substituted Schiff-base ligands will be discussed.

About the speaker: Originally from the Eastern Townships of Quebec, Mike Shaw earned a B.Sc. in Chemistry at Mount Allison University in 1988. He worked with Dr. Peter Legzdins at the University of British Columbia and earned a Ph.D. in inorganic chemistry in 1993. Dr. Shaw was a postdoctoral fellow in Dr. William Geiger's group at the University of Vermont starting in 1993, studying electroanalytical chemistry. In 1996, Dr. Shaw began lecturing basic and advanced chemistry classes at UVM in addition to research.

In 1998, Dr. Shaw accepted an assistant professor position in inorganic chemistry at Southern Illinois University Edwardsville. He was granted tenure and promotion in 2003, and promoted again to professor in 2008. He served as Chair of his department from 2012-2015 and was awarded the title "distinguished research professor" in 2017. Most recently his work has focused on the synthesis of biologically-relevant metal-containing molecules, with emphasis on the consequences of electron transfer on their structure and reactivity. He has made a point in his career to create opportunities for undergraduate and MS students to participate in externally-funded research experiences.

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