

At the 52<sup>nd</sup> annual Inorganic Discussion Weekend (IDW), which was held at the University of Ontario Institute of Technology in Oshawa, Ontario, I gave an oral presentation of the research I am actively conducting in the Neidig Lab within the University of Rochester Department of Chemistry. Titled Homoleptic Uranium Complexes of Uranium (IV), my presentation focused on my research recently published in *Angewandte Chemie International Edition* as well as some more recent work. I presented the three thermally unstable homoleptic uranium complexes which I isolated (the X-ray crystal structure of one can be seen in the photo below). I also presented the current and future outlooks for the project, where am and will be continuing to use the thermal decomposition processes of these molecules in the presence of neutral stabilizing ligands in the hopes of isolating uranium complexes with more reduced oxidation states. I was presented with many questions and suggestions which, since the meeting, have inspired new pathways to try within my doctoral research. These suggestions included other types of neutral ligands I had not previously considered using (i.e. N-heterocyclic carbene ligands) as well as using counterion complexants to stabilize the resulting products. This meeting also allowed me to network with both faculty and students from various universities in Canada, helping to broaden my network to outside of the United States. In addition to presenting my own research, I attended one and a half days of research seminars given by students as well as plenary speakers from around the world who do important inorganic research. From these presentations I obtained several ideas which could be applied to my own research and learned about new areas of research I was not previously familiar with. One of these ideas which I am actively pursuing is the use of lithiated ferrocene as a ligand to uranium. Many of the members of the Neidig group work on iron catalyzed transformations and in doing so they utilize iron <sup>57</sup>Mössbauer Spectroscopy to characterize their complexes. If I were to use an iron-based ligand in my chemistry, I could potentially take advantage of this technique which would help in the characterization of the resulting uranium complex. I learned a lot at this meeting and returned to Rochester with a variety of new ideas for advancement of my research.

