

## 2018 FaSTRAC Visit Summary

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*Microcrystallography of tellurite- and lanthanide-based metal organic frameworks (MOFs) for development of nonlinear optical materials*

I have had a wonderful experience at the Argonne National Laboratory here in Chicago. During this experience I have gotten what I have wanted out of it. I have been challenged with the task I've been assigned and have gained more knowledge about me and my professor's research on crystallography. From working in the lab and reading papers, I was able to get a better understanding on anything that was unclear to me. I was able to move from the simple step to the more complex part of the crystallography process.

I've learned how to pick up crystals with one of the tools we use to mount the crystal for it to be x-rayed. I learned how to cut the crystal if it was too big. I know the process of picking a good crystal to analyze. Analyzing data was something I was kind of unsure about because I never had hands on work experience with it, but it wasn't that bad. The process was long but it was taken care of. I've gained more knowledge on the chemical name uranium as we will be using it more back at school in South Carolina this upcoming semester. I've finally learned how to use the x-ray machine and how it functions. Although I was not well experienced on learning about the database, I was given insight on how it works. I never knew how well experience and how much time it took to pick out one good crystal to hopefully discover a new compound.

I've learned so much more than what I expected to know. From learning about other people's research to knowing more about the one I'm doing. I actually got the idea that everyone's crystal does not work the same. It's amazing how different people can work on crystals but get different results and see how differently it functions based on where they came from and the materials they used. This was a memorable experience from start to finish. The staff was friendly and helpful. The people that I've met treated me as if I fitted right in with them. They were a group of people who shared the same interest as me. If I was granted this opportunity again I definitely would come back.