



**Professor Emil Hernandez-Pagan**  
**University of Delaware**

Friday, April 14, 2023

12:30AM-2:30PM—Panel Session w/ Students  
On-site—CCB 1203

4:00—5:30PM—Speaker Seminar Presentations  
On-site—CCB 1303  
Virtual—Zoom\*

**Host:** Professor Kate Waldie

***“Control in Nanoparticles Synthesis: Beyond size and shape”***

In this talk, I will share some of my group's research efforts in three areas centered on solution synthesis of nanoparticles. First, I will focus on efforts to control crystal structure. Crystal structure plays a central role in the properties exhibited by a material. As such, intense research efforts are focused on polymorph selectivity during materials synthesis in the nano and bulk scales. We are using Mn chalcogenides, having three known polymorphs, as a model system towards developing a better understanding of factors that control crystal structure selectivity. Second, I will present on the synthesis of metal oxide nanoparticles with tailored optical properties. Lastly I will talk about some work on the synthesis of unexplored metal alloy nanoparticles.

*\*For Zoom information, please contact Loretta Lupo @ [lal275@chem.rutgers.edu](mailto:lal275@chem.rutgers.edu)*