CRE Faculty Name: Meng Zhou
Project Title: "Optimization of Catalyst Synthesis and Catalytic Reaction Conditions"
CRE Course: CHM 3463 Advanced Synthesis Laboratory
Student Researcher Name and Major: Addie Nagel (Chemical Biology), Elizabeth Lee (Biomedical Engineering), and Hailey Catania (Chemical Biology), Jessica Clore (Chemistry)

CRE Project Description:
We have published our peer-reviewed, original research article based on the work carried out by the recipient of the inaugural CRE student researcher award from 2018 (Chemistry 2020, 2(4), 960-968). In this report, we described an efficient and potentially sustainable method for chemical synthesis using iridium nanoparticles as the catalyst. In 2020, this work was developed into a lab module for the CHM 3463 Advanced Synthesis Lab class, where the students reproduced the key findings of the report. However, the students were given the nanoparticle catalyst instead of making it by themselves. In 2022, I plan to replace a lab module with an experiment for students to synthesize the iridium nanoparticle catalyst and to introduce a new CRE component, where the students optimize the reaction conditions reported in our previous work.