

17TH Annual Undergraduate STEM Research Showcase

November 8, 2019

Guidelines for Oral Presentation Abstract Submissions

To be considered for an oral presentation at the Showcase, students must submit an abstract. Accepted abstracts will be published in the Showcase Program Book. If an abstract is not accepted for an oral presentation, the submitter will be given the option of presenting a poster at the Showcase. Students will be notified by October 21 regarding abstracts and presentations.

Presentations

Each student will be given 10 minutes for the presentation followed by five minutes for questions. Presentations will need to be on a flash drive so it can be loaded on to computers in the presentation rooms. Additional information, including set up times and room assignments, will be emailed after an abstract is accepted for presentation.

Abstract Submission

Students should submit abstracts to their department representatives serving on the Showcase committee. Students should work with their faculty advisors to write their abstract. Additionally, there are many good resources on-line that will help you to identify the parts of an abstract and how to write it. Here is one on-line source: https://en.wikipedia.org/wiki/Abstract_%28summary%29

Abstract Format

Abstracts should be submitted by email to your faculty representative in a Microsoft Word File attachment. Abstracts should be less than 250 words and follow the format below.

Title [title-case bold]

Marie Curie, Edwin Hubble and Ada Lovelace [presenter(s) underlined]

Department of STEM Studies, DePaul University, Chicago, IL 60614 [research advisor's univ info]

vsimek@depaul.edu [research advisor's e-mail address]

Schiff-base substituted ruthenium carbon complexes were prepared by treating Grubbs' catalyst with Schiff-base ligand salts that potentially supports chiral substituents. These complexes demonstrated high metathesis activity in organic solvents. The complexes were prepared in three steps in moderate yields but the final step required the use of Schiff-base ligands in the form of their thallium salts (*toxic!*). Using microwave irradiation, our lab prepared the aforementioned organometallic complex in NMR tubes using sodium salts. However, scale-up of the reaction proved difficult. The goal of this study is to determine the best microwave method for producing gram quantities of Schiff-base substituted ruthenium complexes using nontoxic salts. Q-NMR analysis of the complexes' carbene peak was conducted to determine the best microwave method to effect a quantitative reaction. The methodology will provide a nontoxic route into ruthenium Schiff-base catalyst that possesses chiral character, which in turn, opens the possibility for asymmetric catalysis. *Funding: NIH/NIGMS Grant S06 GM 008043 supported this research. [funding sentence italicized]*

If you have questions about the Showcase or abstract submissions, please contact your departmental representative (listed on website) or Mary Ann Quinn @ mquinn22@depaul.edu

go.depaul.edu/showcase