



2018 Illinois LSAMP Symposium Shaping the Future of STEM FEBRUARY 23rd & 24th, 2018 Sheraton Lisle, 3000 Warrenville Rd, Lisle, IL 60532



Sponsored By: The Illinois Louis Stokes Alliance for Minority Participation Program and the Center for STEM Education and Research

Call for Abstracts

Submission Deadline: Friday, February 9, 2018 at 6:00 p.m. CST

An abstract (no more than 250 words) of the work to be presented must be submitted after conference registration at <https://lsamp.ilsampspringconference.com/en/abstract-submission/>. Both poster and podium (oral) presentations will use the same submission platform. Please provide enough detail to enable the program committee to evaluate the work for placement within the conference program.

Be sure to have your abstract approved by your respective ILSAMP coordinator before submittal.

SAMPLE ABSTRACT

Preparation of Ruthenium Complexes via Microwave Irradiation *[title-case bold]*

Shamir Fuller, Pablo Guzman and LeRoy Jones II *[presenter(s) underlined]*

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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]*