

KRISTEN H BURNS

Department of Chemistry, University of Kansas, Lawrence, KS 66045

KBurns780@ku.edu

860-502-7308

EDUCATION

Ph. D Candidate <i>Chemistry</i> University of Kansas	Aug. 2016 – present Lawrence, KS
Master of Science <i>Chemistry</i> University of Saint Joseph	May 2016 West Hartford, CT
Bachelor of Science <i>Biochemistry</i> University of Saint Joseph	May 2015 West Hartford, CT

RESEARCH EXPERIENCE

University of Kansas Advisor: Christopher Elles Ultrafast Dynamics of Higher-Lying Excited-States of Molecular Switches	2017 – present Lawrence, KS
--	--------------------------------

TEACHING AND MENTORING EXPERIENCE

Student Research Mentor University of Kansas	2020 – Present
--	----------------

- **Undergraduate Students:** Jessica Bair, Robert Castaneda
- **Graduate Students:** Daniel Noe, Ian McBride

Graduate Teaching Assistant University of Kansas	2016 – 2019
--	-------------

- **Physical Chemistry for Engineers**, Lecture TA, Fall 2019
Collaboratively planned and led a weekly discussion session with fellow lecture TA and aided in the development of homework assignments, weekly quizzes and exams. Incorporated the use of an online grading software for quizzes and exams.
- **General Chemistry I**, Lecture TA, Fall 2017 – Spring 2019
- **General Chemistry II**, Lab TA, Spring 2017
Taught weekly lab sections and provided supplemental instruction in the lecture course
- **Organic Chemistry I**, Lab TA, Fall 2016
Taught weekly lab sections and provided supplemental instruction in the lecture course

Adjunct Chemistry Faculty University of Saint Joseph	2016
--	------

- **Principles of Inorganic and Organic Chemistry**, Lab Instructor
Updated old and created new lab assignments to be more cohesive with the course material to increase overall understanding.
- **General Chemistry II**, Lab Instructor
Taught weekly lab sections. Tasked with grading all lab assignments and holding exam review sessions.

Graduate Teaching Assistant University of Saint Joseph	2015-2016
--	-----------

- **Principles of Inorganic and Organic Chemistry**, Lab Instructor
Taught weekly lab sections. Tasked with grading all lab assignments and holding exam review sessions.

Physics Tutor University of Saint Joseph	2014-2016
--	-----------

- **Physics I & II**
Held weekly sessions open to all students enrolled in the course. Organized supplemental instruction and practice problems.

LEADERSHIP AND ACADEMIC SERVICE

- Event Coordinator** 2018-2019
Chemistry Graduate Student Organization, University of Kansas
- Participated in developing GSO into an official student organization
 - Coordinated graduate recruiting events for potential and accepted graduate students
 - Represented GSO on the Graduate Affairs committee to voice graduate student concerns over department issues
- Chapter Founder and President** 2014-2016
Gamma Sigma Epsilon Chemistry Honor Society, University of Saint Joseph
- Spearheaded the creation and induction of the Tau Epsilon chapter
 - Organized outreach events at on and off campus events; including "Dry Ice Ice Cream" and "Science Night" at local elementary and middle schools.
 - Represented chapter at the 2016 national meeting and discussed chapter outreach
- Girls in STEM** 2013-2016
Volunteer, University of Saint Joseph
- Girls from middle schools state wide attend to learn about the STEM field and the vast opportunities and need for women within the field
 - Lead an activity on how to make slime and the science behind the changes of physical states and polymer compounds
- Academic Integrity Board** 2014-2016
Student Member, University of Saint Joseph
- Heard academic integrity cases and voted on course of action for offending students
 - Participated in updating university wide academic integrity polices

AWARDS AND SCHOLARSHIPS

- Ralph E. & Ester Weik Badgley Scholarship** 2020
Department of Chemistry, University of Kansas
- Roy W. Sonntag Award** 2016
Department of Chemistry, University of Saint Joseph
- American Chemical Society Senior Organic Chemistry Award** 2015
Department of Chemistry, University of Saint Joseph
- ACS- Connecticut Valley Section Most Outstanding Senior in All Fields of Chemistry** 2015
Department of Chemistry, University of Saint Joseph

PUBLICATIONS

1. K. H. Burns, P. Srivastava, and C. G. Elles, Absolute Cross Sections of Liquids from Broadband Stimulated Raman Scattering with Femtosecond and Picosecond Pulses, *Analytical Chemistry*, **92**, 10686 (2020)

PRESENTATIONS

- Measuring Ultrafast Structural Dynamics of Optogenetic Systems using Femtosecond Stimulated Raman Spectroscopy** September 2018
Poster, Kansas Physical Chemistry Symposium
- Oxidation of Chlorohydrins Using Oxoammonium Salt in the Presence of a Base** April 2015
Talk, ACS Connecticut Valley Undergraduate Research Symposium