

LAUREN FLEMING

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EDUCATION

University of California, Irvine, M.S., Ph.D. (in progress) Irvine, CA
Department of Chemistry, atmospheric chemistry track

The College of Wooster, Bachelor of Arts, *magna cum laude*, May 2014 Wooster, OH
Major: Chemistry **Minor:** Religious studies **GPA:** 3.841

Awards/fellowships/memberships: Rowland Fellowship, Clare Boothe Luce Research Scholar, Local Wooster ACS Section Senior Chemistry Award (2014), CRC Press Chemistry Achievement Award (2011), Phi Beta Kappa junior member, American Chemical Society member

RESEARCH

Senior Thesis - *The Fate of the Formic Acid Radical: Photo-oxidation Kinetics of the Reaction of the Hydroxyl Radical with Oxalic Acid*

- A year-long research project that resulted in a masters-level thesis and oral defense
- Photochemical kinetics of the reaction of the hydroxyl radical with oxalic acid in the presence and absence of oxygen
- Method development for the detection of μM formic acid concentrations

Clare Boothe Luce Research Scholar Wooster, OH Summer 2012-present

- Two academic years and summers of one-on-one research with a faculty member funded through the Henry Luce foundation
- Investigated the photochemical kinetics for the reaction of the hydroxyl radical with oxalate

Posters:

- Erica R. Villa; Lauren T. Fleming. The Ultraviolet Photochemistry of Aqueous Oxalate Species. Presented at the American Chemical Society National Meeting, New Orleans, LA, April 8, 2013.
- Rebecca L. Craig; Lauren T. Fleming. Kinetics and Mechanism of the Reaction Between Aqueous Oxalate Species and the Hydroxyl Radical. Presented at the ACS National Meeting, New Orleans, LA, April 8, 2013.
- Lauren T. Fleming. Photo-oxidation Kinetics of Aqueous Oxalic Acid. Presented at the ACS National Meeting, Dallas, TX, March 17, 2014.

SCIENCE EXPERIENCE

The University of California, Irvine Irvine, CA
Chemistry Department/ Teaching Assistant Fall 2014- present

- Taught the second quarter of general chemistry laboratory
- Graded laboratory reports, held weekly office hours, gave pre-lab lectures, and oversaw class time in the laboratory

The College of Wooster Wooster, OH
Chemistry Department / Peer Lead Team Learning (PLTL) leader Fall 2013- Spring 2014

- Weekly meetings of introductory chemistry students to reinforce the concepts presented in class
- My role was to foster a group-learning environment, and answer any individual questions
- I assisted 5- 20 students a week in studying and preparing for their chemistry class

Chemistry Department and Learning Center/ Peer tutor Fall 2011- Spring 2014

- Tutored general chemistry and organic chemistry students
- I met one-on-one with 2-3 students on a weekly basis

Chemistry club/ secretary and member Fall 2011- Spring 2014

- Elementary school outreach, coordinating chemistry club seminar speakers, planned events for National Chemistry Week
- Secretary duties involve advertising meetings and recording the meeting minutes

Expanding Your Horizons program/ volunteer Spring 2013, 2014

- Facilitated a day designed to inspire girls to pursue STEM fields

Buckeye Women in Science and Engineering Research (B-WISER)/ Camp counselor Summer 2012

- Five-day overnight science camp for middle school girls
- Was responsible for the safety and wellbeing of the participants, and engaged in science- related projects and activities with them.

COMMUNITY SERVICE AND LEADERSHIP

UKIRK/ Wooster chapter member Wooster, OH Fall 2012- Spring 2014

- National student group of the Presbyterian Church (USA)
- 5 - day service trip to Philadelphia where we volunteered at non-profits (Winter 2013)

College of Wooster Service Trip/ Participant, West Virginia Spring Breaks 2011, 2012, 2013

- Provided home repairs for disadvantaged families in coal towns

Trinity United Church of Christ/ Poverty Outreach Volunteer Wooster, OH Fall 2012-spring 2013

- Weekly volunteer for a free meal program organized by the downtown church

Interfaith Campus Ministries/ Worthy Questions Intern Wooster, OH Fall 2011- spring 2012

- Assisted with office work and planned/led large group meetings and retreats

SKILLS

- Extensive knowledge of Microsoft Office's Excel, Wavemetrics's Igor Pro, MathWorks's Matlab
- High-performance liquid chromatography (HPLC), ultraviolet-visible spectroscopy (UV-Vis), gas chromatography-mass spectrometry (GC-MS)