

Austin Shotwell

1012 14th Street
Golden, CO 80401
(208)-806-0013

austinshotwell@mines.edu

Education

- Doctor of Philosophy, Applied Chemistry (In progress)
 - Colorado School of Mines, Golden, Colorado
- Bachelor of Science, Chemistry and Politics
 - Centre College, Danville, Kentucky (Summa Cum Laude, 3.981 GPA)

Honors

- Rufus Preston Carter Chemistry Prize 2021, Centre College
- Analytical Chemistry Award 2020, Centre College
- Junior Marshal 2020, Centre College
- Dean's List 2017-2021, Centre College
- Student Representative for the Chemistry Program 2019-2021, Centre College
- Brown Fellowship Recipient, Centre College

Research Experience

Solid-State Electrolytes (November 2021–Present, Colorado School of Mines)

- Investigate solid-state electrolytes for applications in all-solid-state batteries
- Improve ion transport and electrochemical stability of electrolyte materials
- Address poor interfacial contact and undesirable electrode-electrolyte interactions

Molecularly Imprinted Polymers (August 2019–May 2021, Centre College)

- Utilized molecularly imprinted polymers (MIPs) to capture biological metabolites of drugs
- Determined binding capacity of various MIPs for metabolites of aspirin
- Operated UV-Vis instrument and analyze spectra

Bourbon (August 2018–May 2019, Centre College)

- Determined identity and concentrations of congeners in bourbon distillate
- Worked to develop a GC-MS method for analyzing bourbon distillate
- Performed research independently and report results to faculty mentor on a weekly basis

Work Experience

Chemistry Teaching Assistant (August 2021–Present, Colorado School of Mines)

- Supervise chemistry students and maintain high safety standards in the lab
- Respond to student questions in a manner designed to promote critical thinking
- Grade student work in a timely and fair manner

Resident Director (August 2019- May 2021, Centre College)

- Oversaw the day-to-day operations of a residence hall of 100 first-year students
- Directly supervised five undergraduate Resident Assistants
- Led Resident Assistant recruitment efforts for the Office

Chemistry Lab Teaching Assistant (August 2018–May 2021, Centre College)

- Supervised chemistry students as they performed lab experiments
- Answered student questions about chemistry and lab expectations
- Communicated objectives of weekly lab sections to students