

# Alexa Schroder

Denver, CO

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## Education

**Coe College, Cedar Rapids, IA**

**Anticipated Graduation May 2024**

Bachelor of Arts, Biochemistry, Chemistry with American Chemical Society Certification

**Red Rocks Community College, Lakewood, CO**

**Fall 2019 - Spring 2020**

Dual Enrollment Program

## Coursework

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|--------------------------|---|--------------------------------------|
| ● Calculus Based Physics | ● Adv. Analytical Chemistry                     | Biology                              |
| ● Organic Chemistry      | ● Biochemistry                                  | ● Microbiology                       |
| ● Synthesis Laboratory   | ● Calculus III with<br>engineering applications | ● Organismal & Ecological<br>Biology |
| ● Genetics               | ● Immunology                                    | ● Drugs and Behavior                 |
| ● Physical Chemistry     | ● Human Physiology                              | ● Biopsychology                      |
| ● Inorganic Chemistry    | ● Cellular & Molecular                          | ● Human Anatomy                      |

## Research, Conferences, and Publications

**Society of Glass Technology Conference, Cambridge, UK**

**September 2023**

**Physics Research Presenter**

- Presented about a research paper I co-authored on sodium silicate glasses over a wide compositional range and our findings using silicon 29 MAS-NMR and Raman spectroscopy.

**Glass & Optical Materials Division Conference, New Orleans, Louisiana, USA**

**June 2023**

**Physics Research Presenter**

- Gave a presentation about sodium silicate glasses over a very wide compositional range and the structural findings using silicon 29 MAS-NMR and Raman spectroscopy.

**Coe College Chemistry Department, Cedar Rapids, IA**

**June 2023- August 2023**

**Organic Medicinal Chemistry Researcher**

- Synthesized and researched Guanidine Quinazoline compounds using organic synthesis techniques.
- Characterized products using NMR, and TLC testing.
- Tested the products for their antimicrobial properties using biological testing with E. coli and plating.

**Coe College Physics Department, Cedar Rapids, IA**

**June 2022- August 2022**

**Physics Glass Researcher**

- Glass research making sodium boro-tellurite glass compounds of increasing modifier compositions.
- Analyzing glass using Raman spectroscopy, and thermal analysis then recording the data using spreadsheets.
- Writing a research paper on NMR and Raman analysis of a very wide range sodium silicate glasses. Reading research papers for background information on the studies.

- Learning Origin graphing and NMR deconvolutions to analyze the area under the curve for determining how many bonds are surrounding each silicon atom in the compound.
- Working as a team with professors and other undergraduate researchers to obtain information for the paper for publication.

## Experience

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**Stewart Memorial Library, Coe College, Cedar Rapids, IA** **Spring 2021-Present**  
**Library Circulation Desk Worker**

- Assisting with customer service, helping patrons locate books and or articles, renting out or checking back in library materials.
- Shelving and ensuring the library shelves stay in order of their call numbers and assisting the librarians with tasks at hand.

**Coe College Learning Commons, Cedar Rapids, IA** **Fall 2021-Spring 2022**  
**Supplemental Instruction Leader**

- Teaching weekly review sessions for students in General Chemistry II, providing practice problems, explaining the material from the class, and providing studying advice for the students.
- Attending the class to assist the professor with helping students answering questions and with class work if needed.

**Williams Sonoma, Littleton, CO** **May 2018 - January 2023**  
**Cashier/Salesperson**

- Worked as a team to provide excellent and efficient customer service care, assisting customers with information about the products, finding products for them and performing online orders.
- Worked in the cash wrap answering questions and the phone and performing online and register transactions.

**Executive Internship Program, Lakewood, CO** **August 2019-March 2020**  
**Lab Assistant**

- Assisted graduate students at the Colorado School of Mines with their research projects in the molecular chemistry labs.
- Worked on projects such as synthesizing drug transportation cells, hydrogen fuel cells, and making enzymes to break down plastic chains.

## Campus and Community Involvement

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- **Coe College Chemistry Club** **Fall 2022-present**  
Treasurer and Vice President; assist with volunteer projects to help teach elementary school children about chemistry through experiments. Run a weekly chemistry help room to provide one on one help for students in chemistry classes with their classwork and understanding the concepts being taught.

- **Cultural Exchange Volunteering with Burmese Migrant Students** **May 2023**  
Traveled to Mae Sot, Thailand, a town on the Thai-Burmese border, and did a cultural exchange with high school students at a Burmese migrant student school to teach them about American student life and for them to teach us about the lives they lead as students amid the Burmese civil war.
- **Asian Association at Coe** **Fall 2022-Spring 2023**  
Treasurer; assisting with budgeting, applications for funding for the club, and running cultural events to spread knowledge about Asian culture of various countries through art, cooking and cultural festival events.
- **Unity Point Health-St. Luke's Hospital Volunteer** **February 2021- April 2022**  
Assisting with patients in wayfinding across the hospital and the Imaging department with taking patients to their respective appointments