

**Shelby Galinat**  
Golden, CO  
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**Education:**

- Colorado School of Mines (CSM) *Present*
    - Materials Science Graduate Program, third year, Maughan Group
    - Passed qualifying exam
    - GPA: 3.96
  - University of Utah (UU), Honors College, Magna Cum Laude *Graduation May 2022*
    - Bachelor of Science in Chemistry, Atmospheric and Environmental emphasis
    - GPA: 3.99
    - Dean's List *2018 to 2022*
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**Honors:**

- NSF Graduate Research Fellow *Present*
  - CSM Trefny Center Graduate Teaching Fellow *Present*
  - NSF Institute for Data Driven Dynamical Design (ID4) Vice President for Research and Technology Transfer (VPRTT) Fellow *2023*
  - CSM Chemistry Department Outstanding New Graduate Student Award *2022*
  - Bonner Memorial Award *2022*
    - UU chemistry department award for excellence in undergraduate chemistry
  - Honors in Chemistry Award *2022*
    - UU chemistry department award for writing an undergraduate honors thesis
  - Eccles Distinguished Scholar *2018 to 2022*
    - Full ride scholarship from UU Honors College
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**Research:**

- Maughan Group Graduate Researcher (CSM) *Present*
    - Orientational phase transitions and Li ion transport in Li argyrodite solid state electrolytes
  - Sigman Group Undergraduate Researcher (UU) *2020 to 2022*
    - Undergraduate Research Opportunities Program (UROP): *2020 to 2022*  
Synthesized and modeled the solubility of bipyrimidine electrolytes in acetonitrile for non-aqueous redox flow batteries (NRFBs)
    - REU: Developed conditions for a novel bipyrimidine electrophotocatalyst to reduce naphthalene chloride *2021 to 2022*
    - UROP: Computed properties of cyclic poly(phthalaldehyde) derivatives to build a predictive model for depolymerization temperatures *2020*
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**Publications:**

- Pancoast, A.; McCormack, S.; **Galinat, S.**; *et al.* Data Science Enabled Discovery of a Highly Soluble 2,2'-Bipyrimidine Anolyte for Application in a Flow Battery, *Chem. Sci.*, **2023**, *14* (47), 13734-13742. *2023*  
DOI: 10.1039/D3SC04084D

- **Galinat, S.** Bipyrимidine Solubility Modeling For Applications In Non-Aqueous Redox Flow Batteries, *University of Utah Honors Theses Open Access*, **2022**.  
<https://collections.lib.utah.edu/ark:/87278/s6ny8r1a>
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### Presentations:

- ACS Rocky Mountain Regional Meeting Presentation (Univ. of Wyoming) 2023
    - “If at first you don’t succeed, nitride, nitride again: Mg ternary nitride solid state electrolyte synthesis”
  - Institute for Data Driven Design (ID4) Meeting Poster (Harvard) 2024
  - Colorado Center for Advanced Ceramics (CCAC) Poster (CSM) 2024
  - Colorado Center for Advanced Ceramics (CCAC) Poster (CSM) 2023
  - Alliance for Diversity in Science and Engineering (ASDE) Young Researchers Conference Poster (Texas A&M) 2023
  - Graduate Research And Discovery Symposium (GRADS) Poster (CSM) 2023
  - Rocky Mountain Solid State Chemistry Workshop Poster (CU Boulder) 2023
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### Outreach:

- Materials Mystery science kit development *Present*
    - Designing hands-on materials science activities for high school students
  - College Teaching Certificate Program (CSM) 2023 to 2024
    - Developing a syllabus, teaching statement, and statement of diversity, equity and inclusion as well as practicing micro-teaching
  - Integrating LLMs into the Materials Chemistry Curriculum Workshop 2024
    - Brainstorming opportunities to leverage large language models (LLMs) for chemistry and materials science education
  - Mentorship of undergraduates
    - Student: Lexi Collins (CSM) 2023
    - Integrating Computation And Experiment To Create Revolutionary Materials (ICECRM) Research Experiences for Undergraduates (REU) 2023
      - Students: Rae Earnest (Iowa State), Eleni Ziu (Virginia Tech.)
  - Rocky Mountain Mathematics, Engineering, and Science Achievement Mentor (CSM) 2023
    - Collaborating with a teacher to generate and teach STEM curriculum once per week at Arvada K8
  - SWE Girls Lead the Way Event Volunteer (CSM) 2023
    - Performed materials science demonstrations and answered questions about STEM careers and education
  - Bud Bailey Tutor and Program Director (UU) 2019 to 2022
    - Tutor: Facilitated English reading practice and homework completion with predominantly immigrant and refugee students
    - Program Director: Recruited and managed volunteers, coordinated STEM activities with a community partner
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### Teaching:

- Structure of Materials Guest Lecture – Bragg’s Law (CSM) 2024

- Physical Chemistry I Lab TA (CSM) 2023
  - Molecular Engineering and Materials Chemistry Lab TA (CSM) 2023
  - General Chemistry I Lab TA (CSM) 2022
  - Organic Chemistry II TA (UU) 2021
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**Extracurricular:**

- Mines Mountain Bike Collegiate Nationals Team Member 2022
  - 7<sup>th</sup> place individual club cross-country
  - 1<sup>st</sup> place D2 club team omnium