

GRACE E. KUNKEL

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EDUCATION

University of California, Los Angeles (August 2019-Present)

Chemistry Graduate Program, Materials Track

Hope College (May 2019)

Magna Cum Laude, Cumulative GPA: 3.84

ACS B.S. in Chemistry with a Biochemistry Emphasis

Mathematics Minor

RESEARCH EXPERIENCE

Graduate Research Assistant

August 2019-Present

UCLA Department of Chemistry

Advisor: Professor Heather D. Maynard

- Synthesis of polymer materials for drug and protein delivery.

Undergraduate Research Assistant

May 2016-May 2019

Hope College Department of Chemistry

Advisor: Dr. Mary Elizabeth Anderson

- Solution-phase modified polyol synthesis of tetrahedrite nanoparticles for thermoelectric applications.
- Investigation of amyloid beta as a potential anti-microbial peptide in *Salmonella enterica* using atomic force microscopy in collaboration with Dr. Gerald Griffin.

PUBLICATIONS

Weller, D.P., D.L. Stevens, G. E. Kunkel, A. M. Ochs, C. F. Holder, D. T. Morelli, M. E. Anderson. Thermoelectric Performance of Tetrahedrite Synthesized by a Modified Polyol Process. *Chem. Mater.* **2017**, 29 (4), 1656-1664.

Weller, D.P., G. E. Kunkel, A. M. Ochs, D. T. Morelli, M. E. Anderson. Observation of n-type behavior in Fe-doped tetrahedrite at low temperature. *Mater. Tod. Phys.* **2018**, 7, 1-6.

Fasana, C. D.; M.S. Jensen, G.E.G. Ponte, T.R. MacAlister, G.E. Kunkel, J.P. Rogers, A.M. Ochs, D.L. Stevens, D.P. Weller, D.T. Morelli, M.E. Anderson, Synthetic Versatility, Reaction Pathway, and Thermal Stability of Tetrahedrite Nanoparticles. *J. Mater. Chem. C* **2020**, 8 (40), 14219–14229.

HONORS AND AWARDS

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| NIH Chemistry-Biology Interface Training Grant | 2020 |
| NSF GRFP Honorable Mention | 2020 |
| George and Joan Zuidema Award for Excellence in Undergraduate Student Research | 2019 |

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| Hope Chemistry Senior Award for Research | 2019 |
| Phi Beta Kappa | 2019 |
| Hope College Mortar Board Honor Society | Spring 2018-May 2019 |
| Hope College Dean's List | Fall 2015- May 2019 |
| Beckman Scholar | May 2017-August 2018 |

TEACHING EXPERIENCE

Organic Chemistry Laboratory Teaching Assistant September 2019-Present
UCLA Department of Chemistry

- Lead lab activities, grade pre- and post-lab assignments, and maintain safety.

Chemistry Laboratory Teaching Assistant January 2018-May 2019
Hope College Department of Chemistry

- General and Analytical Chemistry TA
- Support students in lab, evaluate pre-lab assignments, aid in lab preparation, troubleshoot instrumentation.

Peer Partnered Learning (PPL) Affiliate August 2016-May 2019
Hope College Department of Chemistry

- PPL Leader (2016-2018): Attended and assisted in general chemistry lectures; facilitated a weekly review session over course material with focus on study skills and student collaboration.
- PPL Mentor (2018-2019): Assist in leader training sessions; create materials and resources to support PPL leaders and improve the PPL program.

EMPLOYMENT, LEADERSHIP AND SERVICE

Organization for Cultural Diversity in Science (OCDS) May 2020-Present

- Social and Recruitment Chair

California Nanosystems Institute Outreach Volunteer September 2019-Present

Women in Science and Engineering (WiSE) Departmental Head September 2017-May 2018

EXTERNAL POSTER PRESENTATIONS

Grace E. Kunkel, Daniel P. Weller, Daniel L. Stevens, John P. Rogers, Andrew M. Ochs, Donald T. Morelli, and Mary E. Anderson. "Solution-Phase Synthesis and Thermoelectric Characterization of n- and p-type Tetrahedrite (Cu₁₂Sb₄S₁₃) Nanoparticles", ACS National Meeting, Orlando, FL, March 31-April 4, 2019.

Grace E. Kunkel, Andrew M. Ochs, Daniel P. Weller, Daniel L. Stevens, Donald T. Morelli, and Mary E. Anderson. "Solution-Phase Synthesis and Thermoelectric Characterization of Tetrahedrite Nanoparticles", Beckman Annual Conference, Irvine, CA, August 12-15, 2018.

Grace E. Kunkel, Daniel P. Weller, Daniel L. Stevens, Andrew M. Ochs, Donald T. Morelli, and Mary E. Anderson. "Modified Polyol Synthesis and Thermoelectric Characterization of Tetrahedrite", ACS National Meeting, Washington D.C., August 20-August 25, 2017.

Grace E. Kunkel, Daniel P. Weller, Daniel L. Stevens, Andrew M. Ochs, Donald T. Morelli, and Mary E. Anderson. “Modified Polyol Synthesis of Tetrahedrite ($\text{Cu}_{12}\text{Sb}_4\text{S}_{13}$)” Midstates Consortium for Math and Science, Washington University, St. Louis, MO, November 6, 2016.