

NAME
ADDRESS

Email:
Cell:

CURRICULUM VITAE

Education

- **M.S., Chemistry**, San Jose State University, San Jose, CA (2018)
Thesis: REDACTED
- **B.S., Environmental Science w/ Mathematics minor**, Mills College, Oakland, CA (2014)
- CSU Maritime Academy, Vallejo, CA (Transferred 2010)
- **A.A., Liberal Arts**, Diablo Valley College, Pleasant Hill, CA (2009), with honors

Awards and Funding

- Certificate of Achievement for completion of Design of Experiment Workshop, Objective Experiment Strategies for Biotech, Alector (2020)
- Student Associates of the American Chemical Society Research Award, San Jose State University (2017)
- LLNL, FY15 SPOT Award for Exemplary Contributions to the Natural Carbon Group, Center for Accelerator Mass Spectrometry, Lawrence Livermore National Laboratory, Physical Life Science division (2015)
- Student Travel Grant, Geological Society of America (2012)
- Student Research Grant, Mills College (2012)
- Undergraduate Research and Opportunities Grant, Mills College (2012)
- Dean's Scholarship, Mills College (2010-2011)
- Dean's List, California State Maritime (2009-2010)
- Admiral's Leadership award, California State Maritime (2010)
- Good Conduct Award, California State Maritime (2010)

Research Experience

- Research Associate II (Contractor), Alector, Milpitas, (2020-2021)
- Production Biochemist I, List Biological Laboratories, Campbell, CA (2019-2020)
- Metal Analyst II, Forensic Analytical Laboratories, Metals Lab, Hayward, CA (2018-2019)
- Graduate Researcher, Eggers Lab, San Jose State University, San Jose, CA.(2017-2018)
- Graduate Researcher, Cheruzel Lab, San Jose State University, San Jose, CA.(2014-2016)
- Scholar Intern, Center for Accelerator Mass Spectrometry, Lawrence Livermore National Laboratory, Livermore, CA. (2014-2016)
- Science Undergraduate Laboratory Intern, Center for Accelerator Mass Spectrometry, Lawrence Livermore National Laboratory, Livermore, CA (2013)
- Geochemistry Undergraduate Researcher, Faul Lab, Mills College, Oakland CA. (2011-2012, 2013-2014)

Teaching Experience

Teaching Associate:

- *General Chemistry Laboratory*, San Jose State University (Fall 2014, Fall 2017)
- *General Chemistry Laboratory for non-majors*, San Jose State University (2014)

Teaching Assistant:

NAME
ADDRESS

Email:
Cell:

- *Organic Chemistry I Laboratory*, Mills College (Fall 2012, Fall 2013)

Supplemental Instructor:

- *College Pre-algebra Supplemental Lecture*, Mathematics Department, Diablo Valley College (2006-2009)
- *Algebra I/II Supplemental Lecture*, Early Childhood Development Department, Diablo Valley College (2008-2009)

Volunteering Experience

- Court Appointed Special Advocate, Child Advocate of Silicon Valley, Milpitas, California (2019-present)
- Court Appointed Special Advocate Mentor, Child Advocate of Silicon Valley, Milpitas, California (2021-present)
- Dog volunteer, Santa Cruz County Animal Shelter, Santa Cruz, California (2017)

Publications

(2020) *Promoting P450 BM3 heme domain dimerization with a tris(5-iodoacetamido-1,10-phenanthroline)Ru(II) complex*, Biotechnol.

Appl. Biochem. 67, 536–540. <https://doi.org/10.1002/bab.1970>

Presented Abstracts

(2018) *DNA Hybridization: Concentration-dependent changes in binding affinity reveal intrinsic change in hydration energy*, Biophysical Society 62nd Meeting, board B226

(2018) *Biophysical approaches for studying desolvation energy in DNA: DNA binding systems*, CSU Program for Education & Research in Biotechnology Biotechnology Symposium, poster # 38

(2013) *Factors for microbial carbon sources in organic, and mineral soils from Eastern United States Deciduous Forests*, American Geophysical Union, Fall Meeting, abstract id 33D-0801

(2012) *The role of small upstream reservoirs in trapping organic carbon, nutrients, and metals in the San Francisco Bay Area*, American Chemical Society Northern California Undergraduate Research Symposium

(2012) *Metal cycling through an ephemeral acid mine drainage impacted urban reservoir in Oakland, CA*, 2012 Geological Society of America Annual Meeting, paper #50

Research Skills

Field Work

- Two month training cruise on the TS Golden Bear working deck and engine side between summer classes.
- Water sampling by Niskin Bottle and hand pump water Millipore filtration unit

NAME
ADDRESS

Email:
Cell:

- Chemical characterization using YSI multiparameter probe to determine %DO, pH, and salinity, as well as buffering capacity by field titration, and turbidity by turbidimeter
- Sediment core collection and extrusion
- *In Lab preparation:* calibration of field instruments, inventorying of materials, gas sampling flask/canister evaluation for O₂, CH₄, and CO₂

Total Metals Analytics

- *Instruments:* total metal quantification of heavy metals by inductively coupled plasma mass spectrometry, inductively coupled plasma-optical emission spectrometry, AA Flame, and Graphite Furnace AA, Hg by Cold Vapor AA, and SiO FTIR identification
- *Sample processing:* Preparation of ¹⁴C and ¹³C samples from a variety of matrices for tandem accelerator mass spectrometer and continuous flow isotope ratio mass spectrometer. Preparation of aqueous samples for sulfate isotope analysis and nutrient analysis
- General clean lab proficiency

Purification Techniques and Characterization

- *Protein and small molecule purification:* Fast protein liquid chromatography, high pressure liquid chromatography (HPLC), gravitational chromatography, flash chromatography, ultrafiltration / diafiltration systems, CO₂ reduction gas lines
- *Kinetics characterization:* fluorophore binding assay, substrate binding assays, microscale thermophoresis, and isothermal titration calorimetry
- *Characterization:* SDS-PAGE, UV-Vis, ¹H and ¹³C NMR, GC-IR, HPLC, and HPLC-MS
- General GMP and GLP proficiency