

Lexi Kenis
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EDUCATION

University of New Mexico – Fall 2020 – Present

Pursuing MS in Geology, Volcanology and Gas Geochemistry

Queens College, City University of New York (CUNY) – Fall 2016 – Spring 2020

Geology BS & Environmental Science BA

RESEARCH PROJECTS

High Temperature Geochemistry & Volcanology

Sulfur Sequestration in Anhydrite Through Alteration of Calcic Wall Rock (08/2021 – Present)

- Supervisor: Tobias Fischer
 - Utilized modeling software (HSC Chemistry 9) to quantify the ability of calcic plagioclase to alter into anhydrite to sequester sulfur in high sulfur emitting eruptions. Currently examining the 1991 Mt. Pinatubo eruption.
 - Funded through NASA's Interdisciplinary Studies in Earth Science

Understanding magmatic processes prior to the 1257 CE Mount Samalas Eruption through plagioclase zoning patterns (05/2019 – 06/2020)

- Supervisors: Marc-Antoine Longpré and Shuo Ding
 - Analyzed plagioclase zoning patterns by coupling backscatter electron imaging (BSE) and electron microprobe point analyses with image analysis software (ImageJ) to better understand the behavior of the melt prior to eruption

Pre-eruptive degassing recorded in Plagioclase zoning of the 2015-2016 Momotombo Eruption, Nicaragua (06/2017 – 12/2017)

- Supervisors: Marc-Antoine Longpré and Samantha Tramontano
 - Gained preliminary understanding of eruptive drivers through SEM images and EDS point analysis of plagioclase zoning

Low Temperature Geochemistry & Paleoclimatology

Strontium Adsorption at the Barite (210)-Water Interface (02/2019 – 06/2021)

- Supervisor: Jacquelyn Bracco
 - Prepared solutions to be used for synchrotron x-ray scattering (CTR and RAXR) at Argonne National Laboratory to determine the extent to which strontium adsorbs to the barite (210)-water interface
 - Dorfman, A*; Kenis, L*; Kubicki, JD; Lee, SS; Fenter, P; Bracco, JN. Pb and Sr Sorption at the Barite (210) Water Interface. In prep for submission to ACS Earth and Space Chemistry.
*authors contributed equally

Using stable isotopes in foraminifera tests to reconstruct paleoclimate from mid-Miocene core samples (02/2018 – 12/2018)

- Supervisor: Stephen Pekar
 - Picked foraminifera to analyze O16/O18 and Ca/Mg stable isotope ratios to reconstruct paleoclimate conditions

PRESENTATIONS AND ABSTRACTS

1. **Kenis L**, Ding S, Longpré M-A. *Understanding the Magmatic Processes Prior to the 1257 CE Mount Samalas Eruption Through Plagioclase Zoning Patterns*. VolcaNYC Symposium, Lamont Doherty Earth Observatory, Columbia University, November 2019. Poster.
2. **Kenis L**, Reade N, Lee SS, Fenter P, Kubicki J.D., Bracco J.N. *Strontium Adsorption at the Barite (210)-Water Interface*. American Chemical Society National Conference*, Philadelphia, PA, March 2020. Online Poster. doi.org/10.1021/scimeetings.0c02085
3. **Kenis L**, Ding S, Economos R, Vidal C, Pratomo I & Longpré M-A. *Understanding the Magmatic Processes Prior to the 1257 CE Mount Samalas Eruption Through Plagioclase Zoning Patterns*. Geochemical Society Goldschmidt Conference 2020. Accepted Abstract. doi.org/10.46427/gold2020.1278
4. **Kenis L**, Fischer F, Henley R. *High Temperature Sulfur Sequestration at Arc Volcanoes*. GeoPRISMS Volatiles Source to Surface Workshop, Montana State University, May 2022. Poster.

TECHNIQUES AND SOFTWARE

Microsoft Excel, Scanning Electron Microscope, EDS analysis software, Petrographic Microscope, MATLAB, ImageJ image analyzer, Electron Microprobe, ArcGIS, QGIS, Adobe Illustrator, MELTs, HSC Chemistry 10, SOLWCAD and Chosetto Thermodynamic Model, CO₂ Flux Meter, Six-circle diffractometer (Argonne National Laboratory)

TEACHING EXPERIENCE

Assistant Teacher The Summit School – Upper School	March 2021 – June 2021
Tutor: Environmental Science 99/100; Geology 99/101 Queens College School of Earth and Environmental Science	Spring 2020 – Spring 2020
Private Tutor	9/2019-Present
<i>Living Environment, Chemistry, Earth Science, and Physics</i>	

PROFESSIONAL SERVICE

- Graduate Worker's Union Department Steward
 - Updated and maintained Broadstripes labor organizing database
 - Communicated with university administration to advocate on behalf of graduate students in the Earth and Planetary Sciences department
 - Organized tabling events to inform graduate students and department faculty of upcoming union events and activities
 - Served on Communications/Media and Contract Support Committees
- School of Earth and Environmental Science Club President (2019 – 2020 academic year)
 - Scheduled promotional events to increase attendance at departmental colloquiums
 - Coordinated remote events to promote mental health and scientific engagement during COVID-19 pandemic
 - Lead tours for high school students to spark interest in pursuing majors in the Earth sciences as college freshman
- School of Earth and Environmental Science Club Secretary (2018 – 2019 academic year)

- Organized graduate school Q&A session with faculty and current graduate students for students seeking further education
- Helped coordinate campus-wide Climate Week event with International Ocean Discovery Program

AWARDS AND SCHOLARSHIPS

Trauger Scholarship - \$2000

Travel Award to GeoPRISMS Volatiles Workshop - \$400

SEES Club award – Given to a graduating student with the second highest GPA

Undergraduate Travel Award – To attend 2020 ACS National Conference in Philadelphia

PROFESSIONAL AFFILIATIONS

American Institute of Professional Geologists New Mexico

Association for Women Geosciences Laramide Chapter

Geological Society of New Mexico

Geochemical Society