Lexi Kenis

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Education

University of New Mexico — Albuquerque, NM
PhD Earth and Planetary Sciences — Fall 2024 - Present

University of New Mexico — Albuquerque, NM
M.S. Earth and Planetary Sciences — Fall 2021 - Summer 2024

Queens College, City University of New York (CUNY) — Flushing , NY
B.S. Geology & B.A. Environmental Science — Fall 2016 - Spring 2020

Technical Skills

Languages: Python, LaTeX, MATLAB
Science Communication: WordPress, Canva, Google Suite, Adobe Suite inc. Adobe Express, Illustrator, After Effects, Photoshop and Premiere, CapCut, Instagram, TikTok, YouTube Studio, Twitch, OBS Studio
Software and Equipment: Scanning Electron Microscope (SEM), EDS Analysis Software, ImageJ Image Analyzer, ArcGIS, QGIS, MELTs, HSC Chemistry 10, Sulfur_X Degassing Model, Diffuse Gas Flux Meter

Research Projects

Unbiased Reconstruction of Magma Ascent Histories at Active Volcanoes from Joint Analysis of InSAR and Petrologic Observations — Fall 2024 - Present, University of New Mexico
Supervisor: Eric Lindsey

- Processed SAR data to generate interferograms of surface deformation events prior to eruptions to correlate the depth of magma storage needed to model those deformation events with magma storage and ascent rates from the petrologic record

Sulfur Sequestration in Anhydrite Through Alteration of Calcic Wall Rock — Spring 2021 - Summer 2024, University of New Mexico
Supervisor: Tobias Fischer

- Utilized modeling software (HSC Chemistry and Sulfur_X) to quantify the ability of calcic minerals to alter into anhydrite to sequester sulfur in volcanic conduits

Understanding Magmatic Processes Prior to the 1257 CE Mount Samalas Eruption Through Plagioclase Zoning Patterns — Spring - Summer 2020, Queens College, CUNY
Supervisor: Marc-Antoine Longpré and Shuo Ding

- Prepared and analyzed plagioclase grain mounts using backscatter electron imaging (BSE) and electron microprobe point analysis with image analysis software (ImageJ) to better understand the zoning patterns in the minerals and the behavior of the melt prior to eruption

Strontium Adsorption at the Barite (210)-Water Interface — Spring 2019 - Summer 2021, Queens College, CUNY
Supervisor: Jacquelyn Bracco

- Prepared solutions to be used for synchrotron x-ray scattering (CTR and RAXR) at at Argonne National Laboratory to determine the extent to which strontium adsorbs to the barite (210)-water interface

Pre-Eruptive Degassing Recorded in Plagioclase Zoning of the 2015-2016 Momotombo Eruption — Summer 2017 - Fall 2017, Queens College, CUNY
Supervisor: Marc-Antoine Longpré and Samantha Tramontano

- Gained preliminary understanding of eruptive drivers through SEM imaging and EDS point analysis of plagioclase zoning

Teaching Experience

Teaching Assistant Fall 2022 - Present
Physical Geology (Fall '22, '24), Igneous and Metamorphic Petrology (Spring '23, '24, '25, '26), Geology in the Field (Summer '23, '24, '25), New Mexico Field Geology (Fall '24, '25) University of New Mexico

- Conducted weekly lectures translating complex geologic concepts for college students at varying degree stages
- Held office hours to provide additional support in understanding course material by tailoring instruction to diverse learners
- Wrote lab assignments to introduce key concepts and to benchmark learning objectives
- Facilitated field trips including drafting field safety plans, selecting trip stops, and adapting instruction to out-of-classroom learning

Assistant Teacher March - June 2021
Assistant instruction in all subjects, one-on-one instruction in Living Environment and Earth Science The Summit School - Upper School

- Assisted teacher in classroom management and in implementing disability accommodations
- Pulled students for one-on-one and small group instruction for Regents (New York State Standardized Exam) preparation
- Helped to facilitate school-wide job-based learning program for assigned homeroom students to cultivate job readiness skills
- Facilitated field trips including drafting field safety plans, selecting trip stops, and adapting instruction to out-of-classroom learning

Undergraduate Tutor Spring 2018 - Spring 2020
Environmental Science 99/100 (Intro for non-majors and majors) & Geology 99/101 (Intro for non-majors and majors) Queens College, CUNY

- Offered regular office hours to students in intro-level courses to go through their lab work, complete test corrections, and review difficult classroom subjects
- Planned and led exam review sessions prior to midterm and final exams

Service, Engagement, and Outreach

UNM Earth and Planetary Science Department News Contributing Writer | Nov 2025 - Present

- Stays informed on most the recent publications, field expeditions, and outreach activities of department faculty and students
- Interviews faculty and students to report on departmental activities
- Distills complex research and field work reports to be understood by non-academic audiences

International Association of Volcanology and Chemistry of Earth's Interior (IAVCEI) Volcanoes and Igneous Plumbing Systems (VIPS) Commission Blog Team | Jan 2025 - Present

- Follows developments in volcanology and related fields
- Commissions, edits, and publish blog content
- Attend VIPS and blog team meetings with collaborators across many timezones
- Manage content distribution across the VIPS website and social media platforms

Presentations and Abstracts

- **Kenis L**, Fischer F, Henley R. Sulfur Sequestration at High Temperature Arc Volcano Settings. USGS Subduction Zone Workshop, University of Washington, January 2023. Poster + “.”
- **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 + “.”
- **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. + “.” Abstract
- **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. + “.” Abstract and Digital Poster
- **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 + “.”