

CURRICULUM VITA

Sanchez, R. P.

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Education, Experience, and Honors

Education

Massey University, Palmerston North, New Zealand

Anticipated Submission: March 2026

Ph.D. of Geology

Timescales and processes of hydrothermal alteration on Tongariro and Ruapehu, New Zealand: Implications and integrations with eruption hazards and history

Miami University of Ohio (MU), Oxford, Ohio

2023

M.A. of Geology

Investigations of magma genesis and crustal processes at Xitle Volcano, Mexico utilizing geochemical and isotope systematics

Central Washington University (CWU), Ellensburg, Washington

2019

B.Sci. of Geology

The 1915 eruption of Lassen Peak, CA: Mass, thermal, and compositional implications of the magma mixing event documented using the Magma Chamber Simulator

Academic Awards, Fellowships, Grants, and Recognition

Geological Society of America Lipman Research Award

2020

CWU Department of Geology: Outstanding Service to the Department

2019

NASA Washington Space Grant Summer Research Fellowship

2018

Utilized Instruments, Softwares, and Skills

JEOL JCM-7000 Benchtop Scanning Electron Microscope - equipped with Energy Dispersive X-Ray Spectrometer

Preparation of petrological thin section and polished rock chips - including highly vesiculated and clay-rich samples

Zeiss Supra 35 VP FEG Scanning Electron Microscope - equipped with Energy Dispersive X-Ray Spectrometer

Cameca SX-50 Electron Microprobe

SG Frantz LB-1 magnetic susceptibility separator

[Magma Chamber Simulator](#)

[MELTS](#)

QGIS

Professional Development and Workshop Attendance

Goldschmidt Virtual Diffusion Workshop	2020
SIMS workshop at the University of California, Los Angeles	2020
INVOLCAN/GEOTENERIFE Internship: Diffused gas on Gran Canaria	2017

Synopsis of Research and Teaching Experience

Peer-Reviewed Journal Articles

*bold 'et al.' where third or later authorship

Ahmadi, J. **et al.**, (2025). [Source versus crustal processing and the evolution of the mantle wedge in the Trans-Mexican Volcanic Belt: Constraints from Os-O-He isotope systematics in olivine](#). Chemical Geology. 674.

Conference Meeting Abstracts

*bold 'et al.' where third or later authorship

Kereszturi, G. **et al.**, (2025). [Volcanic hydrothermal systems on andesitic composite volcanoes - Mineralogy, 3D architecture and their use to understand flank collapse activity](#) in the International Association of Volcanology and Chemistry of the Earth's Interior Meeting 2025

Sanchez, R. **et al.**, (2025). [Quantifying hydrothermal system timescales at Tongariro volcano, Aotearoa New Zealand](#) in the International Association of Volcanology and Chemistry of the Earth's Interior Meeting 2025

Sturgess, D. **et al.**, (2025). [Hyperspectral imaging, mineralogy, and outgassing exploring the volcanic hydrothermal system of Red Crater, Tongariro, Aotearoa/New Zealand](#) in the International Association of Volcanology and Chemistry of the Earth's Interior Meeting 2025

Ahmadi, J. **et al.**, (2024). [Causes of Chemical Variations in Monogenetic Eruptions: The Magmatic Evolution of Xitle Volcano, Mexico](#) in the Goldschmidt International Meeting 2024

Kereszturi, G. **et al.**, (2024). [A fossil hydrothermal system within the Wahianoa Formation, Mt Ruapehu, New Zealand](#) in the Geoscience Society of New Zealand Meeting 2024

Ahmadi, J. **et al.**, (2023). [Testing Source vs Crustal Processing in High-Mg# Arc Magmas from the Trans-Mexican Volcanic Belt: Os Isotope Systematics in Olivine](#) in the Commemorating the 80th anniversary of Parícutin volcano: Preserving our heritage and preparing for future eruption Meeting 2023

- Sanchez, R.** et al., (2023). [Unraveling the timescales and processes of hydrothermal alteration at Tongariro volcano, New Zealand](#) *in* the Geoscience Society of New Zealand Meeting 2023
- Adams, J.V. **et al.**, (2021). [Quantitative constraints on magma mixing and eruption dynamics during the 1915 Lassen Peak, CA eruption using thermodynamic modeling and transport calculations](#) *in* the Geologic Society of America National Meeting 2021
- Sanchez, R.** and Bohrsen, W.A. (2019). [The 1915 eruption of Lassen Peak, California: Mass, thermal, and compositional implications of the magma mixing event documented using the Magma Chamber Simulator](#) *in* the Geologic Society of America National Meeting 2019
- Sanchez, R.** and Bohrsen, W.A. (2019). [Quantifying the magma mixing event of the 1915 Lassen Peak, California eruption using the Magma Chamber Simulator](#) *in* the Geologic Society of America Cordilleran Section Meeting 2019
- Amorite, C. **et al.**, (2018). [Carbon stable isotopic composition of soil gas CO₂ for surface geothermal exploration in Gran Canaria, Canary Islands](#) *in* the European Geosciences Union Meeting 2018

Teaching Experience

Instructor of Record:

Introductory Geology Laboratory (MU)	2021-2019
Geology Tutor at Academic Center for Athletes	2019-2018

Undergraduate Teaching Assistant:

Volcanology	2019
Mineralogy	2019
Rocks and Minerals	2018
Introductory Geology Laboratory (CWU)	2018

Invited Talks

Oregon State University, Modeling Volatile Saturation in the 1915 Lassen Eruption Using the Magma Chamber Simulator	2021
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Extracurricular Activities and Outreach

Extracurricular Organizations and Leadership

Geology Club Secretary	2019-2018
Geology Club General Member	2018-2016
Association of Environmental and Engineering Geologists (AEG) President	2019-2018
AEG General Member	2018-2016

Community Outreach

Guest Speaker at RISE STEM Academy for Girls

2019

Yakima Rock Show

2019 & 2018

Nature of Night

2018

Majors Fair

2018