Jason Noel Ott

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Education

M.S. in Geological Science: Mineral Physics | June 2020 | University of California Santa Cruz

B.S. in Earth and Space Science: Physics | June 2018 | University of Washington
- Graduated with Honors: Cum Laude
- GPA: 3.79

A.S. in Earth and Space Science | June 2016 | Seattle Central College
- Graduated with Honors: GPA: 4.0

Honors and Awards

COMPRES 2019 Annual Meeting
- Student Poster Presentation Award: Compression and Metastability of the Amphibole Mineral Tremolite to High Pressures and Temperatures through Raman Spectroscopy

University of Washington
- Earth & Space Sciences Departmental Honors Program
- Dean's List: 2016-2017: Autumn, Winter, Spring
  2017-2018: Autumn, Winter, Spring

Seattle Central College
- Onsight Scholarship 2015-2016
- NASA Space Grant Scholarship for STEM Students 2015-2016
- Dean's List: 2014-2015: Autumn, Winter, Spring
  2015-2016: Autumn, Winter, Spring
- President's List: 2014-2015, 2015-2016

Research Experience

University of Washington, Structural Petrology of the Lithosphere Group | September 2020 – Present
- Graduate Student Research Assistant: PhD advisor: Professor Cailey Condit. Working at the intersection of petrology, rheology and deformation, and mineral physics in subduction zones. Current project is a compilation study of the range of seismic anisotropy in mafic (glaucophane-rich) blueschists. Samples are mapped using EBSD and analyzed in MTEX to determine the bulk elastic stiffness tensors of the samples in order to calculate their seismic anisotropy (in Vp and Vs). This project will be paired with a series of rheology experiments on glaucophane aggregates to better understand deformation of blueschists and develop constraints for use in geophysical modelling of subduction zones.

University of California Santa Cruz, Mineral Physics Group | August 2018 – July 2020
- Graduate Student Research Assistant: PhD advisor: Professor Quentin Williams. High-pressure and temperature Raman spectroscopy of the mineral tremolite with goal of increasing understanding of the metastability range of amphibole minerals, structural changes at high pressures/temperatures, and the dewatering process of amphiboles as applied to subduction zones. Experimental work at the Advanced Light Source in Berkeley California

performing single crystal X-Ray diffraction study of tremolite to high pressures and temperatures to investigate structural changes and perform high-pressure structural refinements. Mentored undergraduate research assistants in high-pressure research data collection and analysis techniques.

University of Washington, Mineral Physics Group | March 2017-July 2018

- Undergraduate Researcher: Worked under mentorship of Professor J. Michael Brown and Dr. Baptiste Journaux studying the high-pressure/high-temperature ices of pure water and aqueous solutions to determine equations of state, as part of the Icy Worlds project managed by the NASA JPL Experience in preparation and loading of Diamond Anvil Cells, experimental capture of pressure/temperature data points, data fitting and analysis. Accompanied Dr. Journaux to the ESRF in Grenoble France to perform high-pressure, low temperature X-Ray diffraction (powder and single crystal) of high-pressure ices in aqueous solutions.

Publications

J.N. Ott, B. Kalkan, M. Kunz, G. Berlanga, A.F. Yuvali, Q. Williams (2021) Structural behavior of *C2/m* tremolite to 40 GPa: A high-pressure single-crystal X-ray diffraction study (*manuscript in revision).*

J.N. Ott, Q. Williams (2020) Raman spectroscopic constraints on compression and metastability of the amphibole tremolite at high pressures and temperatures. Physics and Chemistry of Minerals, 47(27)

B. Journaux, J.M. Brown, A. Pakhomova, I. Collings, S. Petitgirard, P. Espinoza, **J. Ott**, F. Cova, G. Garbarino, M. Hanfland. (2020) Gibbs energy of ices III, V and VI: wholistic thermodynamics and elasticity of the water phase diagram to 2300 MPa. Journal of Geophysical Research – Planets, 125(1)

Instructor Experience

TA: Earth Materials | Spring Quarter 2021

- Laboratory instructor for Mineralogy portion of course. Lecture on materials covered in lab exercises, designed and implemented teaching tools/lab assignment for symmetry portion of lab course. Designed lab mid-term and final exams, grading of lab materials and exams.

TA: Introduction to Geology: A Human Perspective | Autumn Quarter 2020

- Laboratory/discussion section instructor for course. Lead tutorials on material covered in lab assignments, planned and lead weekly discussions/group exercises related to impact of geology on our society. Grader for lab assignments and moderator/grader of debate project

TA: Earth as a Chemical System | Winter Quarter 2019, 2020

- Laboratory instructor for Mineralogy portion of course. Lecture on techniques to identify physical properties of minerals for identification of hand samples for set of 100 rock-forming silicate and non-silicate minerals, aid students in development of skills, and proctoring of practical lab final

TA^2: Earth Materials and Processes | Winter Quarter 2018

- Assist the Teaching Assistant in the laboratory section of Earth Materials and Processes to aid students in process of learning mineral and rock identification techniques for hand sample and thin sections, and physical properties of minerals.