CURRICULUM VITAE (CV)

Valerie Curry
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EDUCATION

Boston University, Boston, MA **Jan. 20xx - Present**
Postdoctoral Researcher, Department of Earth and Environment
- Research focuses on the production of magmas in the Aleutian arc using experiments and geochemical modeling.

Massachusetts Institute of Technology, Cambridge, MA **Sept. 20xx**
Ph.D. Department of Earth, Atmospheric and Planetary Sciences
- Thesis: *Petrology and Geochemistry of High Degree Mantle Melts.*

Harvard University, Cambridge, MA **June 20xx**
BA, Earth and Planetary Sciences, Cum Laude
- Senior Thesis: *The Predicted Seismic Velocity of the Mantle Transition Zone Based on High Pressure Phase Equilibria Experiments.*

AWARDS:
- National Merit Scholarship
- Awarded best senior thesis by Harvard Geology Club

RESEARCH

Boston University, Department of Earth and Environment **Jan. 20xx-Present**
Advisor, Dr. Who, Boston, MA
- Quantify the pressure, temperature, and composition of the source region of Aleutian arc magmas. Focus is on the effect of water on phase relations.
- Work involves high pressure experiments, analyses of experimental charges, and geochemical modeling of data.

MIT, Department of Earth, Atmospheric and Planetary Sciences **July 20xx-July 20xx**
Advisor, Dr. Anonymous, Cambridge, MA
- Experimentally determined the thermodynamic effect of water on high-degree mantle melting.
- Incorporated experimental data into a predictive thermodynamic model of hydrous mantle melting.
- Estimated the secular cooling of the Earth's mantle by applying predictive model to subduction magmas from 0 to 3.5 Ga.
- Employed trace element modeling to estimate the effect of metamorphism on Barberton komatiite bulk samples and to constrain their tectonic setting.
- Modeled the flow of mantle in subduction zones using pre-existing finite dement codes.
- This geodynamic study was combined with petrologic data to constrain the temperature and viscosity structure of the sub-arc mantle.
- Determined the solubility of He in olivine with the goal of understanding the extent of degassing and convection in the deep mantle.
- Other experimental projects include the solubility of Fe in AuPd alloys, textural studies of komatiites, and development of the multi-anvil device at MIT.

Harvard University, Department of Earth and Planetary Sciences **Sept. 20xx-May 20xx**
Advisor, Dr. Gold, Cambridge, MA

- Constrained the composition of the mantle transition zone by comparing observed and predicted seismic velocities.
- Work involved running ultra-high pressure (up to 2.3 GPA) phase equilibrium experiments and analyzing results with electron microprobe.
- The measured phase proportions and compositions were used to calculate the seismic velocities of the mantle at transition zone pressures.
- The calculations were used to evaluate various compositional models.

TEACHING

Boston University, Department of Earth Sciences, Boston, MA **Jan. 20xx – Present**
Lecturer-Introduction to Geochemistry

- Taught and managed entire curriculum for up to 100 students.
- Initiated use of computer modeling in teaching geochemical principles. Focused on teaching students fungible geochemical skills.

MIT, Dept. of Earth, Atmosphere and Planet Sciences, Cambridge, MA **Fall 20xx**
Teaching Assistant-Mineralogy

- Taught lab component of class.
- Assisted in development of lab curriculum.
- Updated and revised existing lab assignments.

MIT, Dept. of Earth, Atmosphere and Planet Sciences, Cambridge, MA **Fall 20xx**
Teaching Assistant-Mineralogy

- Assisted in development of lab curriculum for new course.
- Met individually with students for curriculum input.

MIT, Dept. of Earth, Atmosphere and Planet Sciences Cambridge, MA **Spring 20xx**
Teaching Assistant-Beyond the Solar System.

- Assisted with labs. Graded homework assignments.

PRESENTATIONS

Grove TL, **Curry V**, Dann JC (Kaapvaal conference, 20xx) The generation of Barberton komatiites in an Archean subduction zone.

Grove TL, Dann JC**, Curry V** (Komatiites, Norites, Boninites and Basalts, 20xx) Petrologic and experimental evidence for high H20 contents in Barberton komatiite magmas.

Grove TL, **Curry V** (Goldschmidt, 20xx) Compositional effects of H20 on ol-opx saturated melts.

Curry V, Dann J, de Wit M, Grove T. (IAVCEI, Cape Town, 20xx) Segregation vesicles in 3.5 Ga komatiites: Barberton, South Africa.

Curry V, Grove TL (Spring AGU, 20xx) High pressure water under saturated liquidus phase relations of komatiite from the Barberton Mountainland, South Africa.

Holzheid AD, Grove TL, **Curry V** (First International Pressure Calibration Workshop, 20xx) Precision and accuracy of pressure in a Walker-style multi-anvil device.

Grove TL, **Curry V**, Gaetani GA, Elkins LT (Materials Recycling near convergent plate boundaries, Carnegie Inst. of Washington, Puerto Azul, Philippines, 20xx) Mass transfer processes in the southern cascade subduction zone: the influence of variable water content on mantle melting.

Grove TL, Gaetani G, **Curry V**, Dann J, de Wit M (Spring AGU, 20xx) Origin of spinifex textures in 3.49 Ga komatiite magmas from the Barberton Mountainland, South Africa.

PUBLICATIONS

Curry V, Grove TL, Dann JC, and de Wit MJ (accepted, Feb. 20xx) *Boninites, komatiites, and Archean subduction zones*. Geophysical Research Letters.

Grove TL, **Curry V**, Dann JC, (20xx*) Conditions of magma generation for Archean komatiites from the Barberton Mountainland, South Africa*.

In Mantle Petrology: Field Observations and High Pressure Experimentation: A tribute to Francis R. (Joe) Boyd, **Curry V**, The Geochemical Society, Special Publication 6, Y Fei, C.M. Bertka and B.O. Mysen, eds., p. 155-167.

Curry V, Darm JC, Grove TL and de Wit MJ (2015*) Emplacement conditions of komatiite magmas from the 3.49 Ga Komati formation, Barberton Greenstone Belt, South Africa*. Earth Planet. Sci. Lett. 150, p. 303-323.

ACTIVITIES

- American Geophysical Union, Communications Director, 20xx-present.
- Cambridge Cooperative Pre-School, Board of Directors, 20xx-present.
- Officer, Harvard Geology Club, 20xx-20xx.

REFERENCES

Dr. Who
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Dr. Josephs
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