

Kellie T. Wall

Ph.D. Advisor: Anita Grunder

B.S. Geology, Washington State University

Research Interests:

Subduction zone magmatism: mantle, crustal and temporal controls on the location, composition and behavior of arc volcanoes, esp. the Cascades and Goat Rocks Volcano (current field area). Tracing upper mantle processes through geochemistry (e.g. oxygen fugacity); characterizing eruption styles of basalts quantitatively using novel analytical methods (with applications to Mars science).

Recent Publications and Presentations:

Wall, K.T., Grunder, A.L., Gusey, D.L., and Hammond, P.E., 2016, Goat Rocks Volcano: A long-lived andesite center in the Southern Washington Cascades, Geological Society of America Abstracts with Programs, v. 48, no. 7, doi: 10.1130/abs/2016AM-287940.

Wall, K., Davis, F.A., and Cottrell, E., Oxygen fugacity recorded by xenoliths from Pacific oceanic islands, AGU Fall 2014 Meeting, V52B-04.

Wall, K.T., Rowe, M.C., Ellis, B.S., Schmidt, M., and Eccles, J.D., 2014, Determining volcanic eruption styles on Earth and Mars from crystallinity measurements, Nature Communications, doi:10.1038/ncomms6090.

