

Shaun T. Brown

Lawrence Berkeley National Laboratory
Center for Isotope Geochemistry

1 Cyclotron Rd
MS 70A-4418
Berkeley, CA 94720

(510)-486-5241
stbrown@lbl.gov

Education

University of South Carolina: Columbia, SC 29208
Candidate for Master of Science in Geology (2006)
Thesis title: *Source components in Aleutian arc lavas: constraints from Hf, Nd, and Pb isotopes*

Dickinson College: Carlisle, PA 17013
B.S. Geology with distinction (May 2003)
Thesis title: *Holocene tephrostratigraphy at Korovin Volcano, Central Aleutians*

Honors

Bruce L. Reed Memorial Grant 2004: Geological Society of America
Dean's Fellowship 2003: University of South Carolina
Henry Hansen Research Prize for geologic research 2002: Dickinson College

Relevant work experience

Lawrence Berkeley Lab: Center for Isotope Geochemistry (July 2005-present)

Senior Research Technician

- Sr and U isotopic analysis of natural and contaminated waters
- Developing methods for Cr isotopic measurements
- Maintain and run GV IsoProbe MC-ICPMS
- Develop analytical protocols for Pb, Cr and U

Washington State University (fall 2004, spring 2005) clean laboratory

Research Assistant

- Completed Lu-Hf, Sm-Nd and Pb isotopic lab work including dissolution (both table top and Teflon bomb techniques), ion exchange column separations and trace element preparations.
- Operated the Thermo Finnigan Neptune **MC-ICPMS** at Washington State University under the supervision of Drs. Jeff Vervoort. and Garret Hart.

Additional laboratory experience

- Mineral separations using heavy liquids: Alaska Volcano Observatory (Anchorage, AK)
- Thin section and probe mount preparation: University of South Carolina
- Designed and developed a mineral standard block for quantitative electron microprobe analyses: University of South Carolina
- XRF sample preparation: University of South Carolina and Dickinson College

- Operated SEM (JEOL and Quanta) EMP (Cameca SX50): University of South Carolina

Maine State Geological Survey (summer 2001, January 2002) Research Assistant

- Assisted in the maintenance of the private drinking well database
- Field checked the locations of drinking water wells
- Provided general information to municipal officials about bedrock aquifers and referred them to the appropriate state geologists for further information

Field Work

- Little Sitkin Volcano: Western Aleutians (August 2004)
Field party leader: planned and organized field work. Directed technical aspects of field work including the purchase of equipment and food; Directed the scientific aspects of the field work including: sample collection, and field interpretations.
- Korovin Volcano: Central Aleutians (August 2001, July 2002, July 2004)
Field Assistant: mapped volcanic formations; collected lava, tephra and soil samples to reconstruct the Holocene eruptive history for completing a hazard assessment (in cooperation with the Alaskan Volcano Observatory)
- Dunedin Volcanic Complex: Otago, South Island, New Zealand (spring 2002)
Field mapping project in Miocene volcanic rocks and a marine sedimentary sequence.

Publications

Gerseny, M.G., Vervoort, J.D., **Brown, S.T.**, Yogodzinski, G.M., (In Prep) "Subducted Sediment Controls Over the Isotopic Compositions of Aleutian Lavas"

Brown, S.T., Yogodzinski, G.M., Vervoort, J.D., Gerseny, M.G., (In Prep) Hf and Nd Isotopic Evidence Bearing on the Origin of Hf Depletions in Aleutian Lavas"

Brown, S.T., Yogodzinski, G.M., Vervoort, J.D., Gerseny, M.G., (2005) "Hafnium in Aleutian lavas: Isotopic and trace element evidence for slab melting" Eos Trans. AGU, 86(52), Fall Meet. Suppl., Abstract V34A-07

Brown, S.T., Yogodzinski, G.M., Gerseny, M.G., Vervoort, J.D. (2005) "Slab contributions in the Aleutian arc: a Hf isotopic perspective" 16th Annual V.M. Goldschmidt Conference, Moscow, Idaho.

Gerseny, M.G., Vervoort, J.D., **Brown, S.T.**, Yogodzinski, G.M., (2005) "Along strike Hf-Nd-Pb isotope systematics in the Aleutians" 16th Annual V.M. Goldschmidt Conference, Moscow, Idaho.

Brown, S.T., Yogodzinski, G.M., Edwards, B.R., Bryant, J.A. (2003) "Characterization of Holocene tephra deposits at Korovin Volcano, Atka Island, central Aleutians, USA" Geological Society of America, Cordilleran Section, 99th Annual Meeting V.35

