

Geological Sciences

2004-2005 Faculty Peer-Reviewed Publications

Self Report

* CWU Graduate Student

† CWU Undergraduate Student

Wendy Bohrson

Spera FJ and Bohrson WA, 2004, (INVITED), Open-System Magma Chamber Evolution: an Energy-Constrained Geochemical Model Incorporating the Effects of Concurrent Eruption, Recharge, Variable Assimilation and Fractional Crystallization (EC-E'RAcFC), *Journal of Petrology* 45:2459-2480.

Fowler SJ, Bohrson WA, Spera FJ, 2004, Magmatic Evolution of the Skye Igneous Center, Western Scotland, Special Issue, *Journal of Petrology* 45: 2481-2505.

Carey Gazis

Gazis, C., and Feng, X. (2004) A stable isotope study of soil water: evidence for mixing and preferential flow paths. *Geoderma* 119: 97-111.

Shu, Y., Feng, X., Gazis, C., Anderson, D., Faiia, A., Tang, K., and Ettl, G. (2005) Relative humidity recorded in tree rings: A study along a precipitation gradient in the Olympic Mountains, Washington, USA. *Geochimica et Cosmochimica Acta* 69: 791-799.

Paul Hoskin

Grapes, R. H. and **Hoskin, P. W. O.** (2004) Epidote group minerals in low medium pressure metamorphic terranes. *In*: Liebscher, A. and Franz, G., eds, *Epidotes*. Reviews in Mineralogy and Geochemistry **56**, Mineralogical Society of America, Washington, D.C, pp. 301–345.

Grapes, R. H. and **Hoskin, P. W. O.** (2004) Colour zoning and composition of ruby-sapphire from Westland, New Zealand. *The Journal of Gemmology* **29**, pp. 8–14.

Hampton, W. A., White, G. P., **Hoskin, P. W. O.**, Browne, P. R. L. and Rodgers, K. A. (2004) Cinnabar, livingstonite, stibnite and pyrite in Pliocene silica sinter from Northland, New Zealand. *Mineralogical Magazine* **68**, pp. 191–198.

Hoskin, P. W. O. (2004) Affecting increased student achievement in geoscience education by instruction in metacognition: a small class case study. *E-Journal of Instructional Science and Technology* **7(2)** [http://www.usq.edu.au/electpub/elist/docs/Vol7_no2/CurrentPractice/Affect_student_ach.htm]

Nicholson, K. N., Black, P. M., **Hoskin, P. W. O.** and Smith, I. E. M. (2004) Silicic volcanism and back-arc extension related to migration of the Late Cainozoic Australian–Pacific plate boundary. *Journal of Volcanology and Geothermal Research* **131**, pp. 295–306.

Hoskin, P. W. O. (2005) Trace-element composition of hydrothermal zircon and the alteration of Hadean zircon from the Jack Hills, Australia. *Geochimica et Cosmochimica Acta* **69**, pp. 637–648.

Jeff Lee

Glazner, A.F., Lee, J., Bartley, J.M., Coleman, D.S., and Kylander-Clark, A., Green, D.C., and Le, K., 2005, Large dextral offset across Owens Valley, California from 148 Ma to 1872 A.D., in *Western Great Basin Geology*, Stevens, C. and Cooper, J. (eds.), The Pacific Section Society of Sedimentary Geology, Book 99, p. 1-35.

Lee, J., Hacker, B., and Wang, Y., 2004, Evolution of the North Himalayan gneiss domes: Structure and metamorphic studies in Mabja Dome, southern Tibet: *Journal of Structural Geology*, v. 26, p. 2297-2316.

Friedrich, A. M., J. Lee, B. P. Wernicke, and K. Sieh, 2004, Geologic context of geodetic data across a Basin and Range normal fault, Crescent Valley, Nevada, *Tectonics*, 23, TC2015, doi:10.1029/2003TC001528.

Tim Melbourne

2004 Szeliga, W.* , Melbourne, T., Miller, M. and Santillan, V., Southern Cascadia episodic slow earthquakes, 31, L16602, doi:10.1023/2004GL020824.

2004 Bock, Y., Prawirodirdjo, L. and Melbourne, T., Detection of Arbitrarily Large Dynamic Ground Motions with a Dense High-Rate GPS Network, *Geophysical Research Letters*, 31, L06604, doi:10.1029/2003GL019150.

Timothy I. Melbourne, Walter M. Szeliga, M. Meghan Miller, and V. Marcelo Santillan. Extent and duration of the 2003 Cascadia slow earthquake
GEOPHYSICAL RESEARCH LETTERS, VOL. 32, L04301,
doi:10.1029/2004GL021790, 2005.

Meghan Miller

2004 Szeliga, W.* , Melbourne, T., Miller, M. and Santillan, V., Southern Cascadia episodic slow earthquakes, 31, L16602, doi:10.1023/2004GL020824.

Timothy I. Melbourne, Walter M. Szeliga, M. Meghan Miller, and V. Marcelo Santillan. Extent and duration of the 2003 Cascadia slow earthquake
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Frank Ramos

Ramos, F.C. and Reid, M.R., 2005. Distinguishing melting of heterogeneous mantle sources from crustal contamination: Insights from Sr isotopes at the phenocryst scale, Pisgah Crater, California. *Journal of Petrology*, 46, 999-1012.

Wolff, J.A., Rowe, M.C., Teasdale, R., Gardner, J.N., Ramos, F.C. and Heikoop, C.E., 2005. Petrogenesis of pre-caldera mafic lavas, Jemez Mountains Volcanic Field (New Mexico, USA). *Journal of Petrology*, 46, 407-439.

Ramos, F.C., Wolff, J.A. and Tollstrup, D.L., 2004. Measuring $^{87}\text{Sr}/^{86}\text{Sr}$ variations in minerals and groundmass from basalts using LA-MC-ICPMS. *Chemical Geology*, 211, 135-158.

Charlie Rubin

Rubin, C.M., 2005, Denali Earthquake, in McGraw-Hill 2005 Yearbook of Science & Technology, New York, p. 70-73.