

Professional Preparation

University of California, Berkeley, Earth Science, PhD	2004
University of Arizona, Tucson, Geophysics, MS	1995
University of Montana, Missoula, BA	1992

Appointments

2015-present	Associate Professor	Rice University
2009-2015	Assistant Professor	Rice University
2006-2008	SOEST Young Investigator	University of Hawaii
2005-2006	Daly Postdoctoral Fellow	Harvard University
1996-1999	Hydrogeologist	Geomatrix Consultants

Publications in print (Rice student/postdoctoral scholar in bold font)

Barth, A., Newcombe, M., Plank, T., Gonnermann, H. M., **Hajimirza, S.**, Soto, G., Saballos, A. & Hauri, E., Magma decompression rate correlates with explosivity at basaltic volcanoes – Constraints from water diffusion in olivine. *J. Volcanol. Geotherm. Res.*, 387, doi.org/10.1016/j.jvolgeores.2019.106664, (2019).

Hajimirza, S., Gonnermann, H. M., Gardner, J. E., & Giachetti, T., Predicting homogeneous bubble nucleation in rhyolite. *J. Geophys. Res.*, 124. <https://doi.org/10.1029/2018JB015891> (2019).

Giachetti, T., Gonnermann, H.M., Gardner, J.E., Burgisser, A., **Hajimirza, S.**, Earley, T.C., **Truong, N.** and **Toledo, P.**, Bubble coalescence and percolation threshold in expanding rhyolitic magma. *Geochem. Geophys. Geosys.*, 20. <https://doi.org/10.1029/2018GC008006> (2019).

Moitra, P., Gonnermann, H.M., Houghton B.F. and Tiwary, C.S., Fragmentation and Plinian eruption of crystallizing basaltic magma, *Earth Planet. Sci. Lett.*, 500, 97-104, doi: 10.1016/j.epsl.2018.08.003 (2018).

Tucker, J.M., Mukhopadhyay, S., Gonnermann, H.M., Reconstructing mantle carbon and noble gas contents from degassed mid-ocean ridge basalts. *Earth Planet. Sci. Lett.*, 496, 108–119, <https://doi.org/10.1016/j.epsl.2018.05.024> (2018).

Jones, M.R., Soule, S.A., Gonnermann, H.M., Le Roux, V., Clague, D.A., Magma ascent and lava flow emplacement rates during the 2011 Axial Seamount eruption based on CO₂ degassing. *Earth Planet. Sci. Lett.*, 494, 32–41, <https://doi.org/10.1016/j.epsl.2018.04.044> (2018).

Gardner, J.E., **Hajimirza, S.**, Webster, J.D., Gonnermann, H.M., The impact of dissolved fluorine on bubble nucleation in hydrous rhyolite melts. *Geochim. Cosmochim. Acta*, 226, 174–181, <https://doi.org/10.1016/j.gca.2018.02.013> (2018).

Liu Z., Dugan, B., Masiello, C.A., Wahab, L.M., Gonnermann, H.M., Nittroer, J.A., Effect of freeze-thaw cycling on grain size of biochar. *PLoS ONE*, 13(1): e0191246, doi.org/10.1371/journal.pone.0191246 (2018).

Gonnermann, H.M., **Giachetti, T.**, **Fliedner, C.**, **Nguyen, C.T.**, Houghton, B. F., **Crozier, J.A.** and Carey, R.J., Permeability during magma expansion and compaction. *J. Geophys. Res.*, 122, 1–24, <https://doi.org/10.1002/2017JB014783> (2017).

Simkins, L.M., Anderson, J.B., Greenwood, S.L., Gonnermann, H.M., **Prothro, L.O.**, Halberstadt, A.R.W., Stearns, L.A., Pollard, D. and DeConto, R.M., Anatomy of a meltwater drainage system beneath the ancestral East Antarctic ice sheet, *Nat. Geosci.*, 10, 691-697, doi:10.1038/ngeo3012 (2017).

Liu, Z., Dugan, B., Masiello, C.A. and Gonnermann, H.M., Biochar particle size, shape, and porosity act together to influence soil water properties, *PLoS ONE*, 12, e0179079, doi:10.1371/journal.pone.0179079 (2017).

Houghton, B.F., Taddeucci, J., Andronico, D., Gonnermann, H.M., Pistolesi, M., Patrick, M.R., Orr, T.R., Swanson, D.A., Edmonds, M., Gaudin, D., Carey, R.J. and Scarlato, P., Stronger or longer: Discriminating between Hawaiian and Strombolian eruption styles, *Geology*, 44, 163-166, doi:10.1130/G37423.1 (2016).

Gardner, J.E., Jackson, B.A., Gonnermann, H.M. and Soule, S.A., Rapid ascent and emplacement of basaltic lava during the 2005–06 eruption of the East Pacific Rise at ca. 9°51'N as inferred from CO₂ contents, *Earth Planet. Sci. Lett.*, 453, 152-160, doi: 10.1016/j.epsl.2016.08.007, (2016).

Munoz-Saez, C., Satiel, S., Manga, M., **Nguyen, C.T.** and Gonnermann, H.M., Physical and hydraulic properties of modern sinter deposits: El Tatio, Atacama, *J. Volcanol. Geotherm. Res.*, 325, 156-168, doi: 10.1016/j.jvolgeores.2016.06.026, (2016).

Ferguson, D.J., Gonnermann, H.M., Ruprecht, P., Plank, T.A., Hauri, E.H., Houghton, B.F. and Swanson, D.A., Magma decompression rates during explosive eruptions of Kīlauea volcano, Hawaii, recorded by melt embayments, *Bull. Volcanol.*, doi: 10.1007/s00445-016-1064-x (2016).

Liu, Z., Dugan B., Masiello C.A., Barnes, R.T., Gallagher, M.E., Gonnermann, H.M., Impacts of Biochar Concentration and Particle Size on Hydraulic Conductivity and DOC Leaching of Biochar-Sand Mixtures *J. Hydrol.*, 433, 461-472, dx.doi.org/10.1016/j.jhydrol.2015.12.007 (2016).

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Giachetti, T., Gonnermann, H.M., Gardner, J.E., Shea, T., Gouldstone, A., Discriminating secondary from primary water in rhyolitic matrix-glass of volcanic pyroclasts using thermogravimetric analysis, *Geochim. Cosmochim. Acta*, 148, 457-476, doi:10.1016/j.gca.2014.10.017 (2015).

Nguyen, C.T., Gonnermann, H.M. and Houghton, B.F., Explosive to effusive transition during the largest volcanic eruption of the 20th century, *Geology*, 42, 703–706, doi:10.1130/G35593.1 (2014).

Brewer, C.E., Chuang, V.J., Masiello, C.A., Gonnermann, H.M., Gao, X., Dugan, B., Driver, L.E., Panzacchi, P., Zygourakis, K. and Davies, C.A., New approaches to measuring biochar density and porosity, *Biomass Bioenergy*, doi: 10.1016/j.biombioe.2014.03.059 (2014).

Lloyd, A.S., Plank, T., Ruprecht, P., Hauri, E.H., Rose, W. and Gonnermann, H.M., NanoSIMS results from olivine-hosted melt embayments: Magma ascent rate during explosive basaltic eruptions, *J. Volcanol. Geotherm. Res.*, doi:10.1016/j.jvolgeores.2014.06.002 (2014).

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