

PUBLICATIONS

John C Lassiter
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Peer-reviewed Publications (H index = 25 as of 02/01/2019 per Google Scholar)

[N] = # citations per Google Scholar as of 02/01/2019

* denotes student where Lassiter was primary advisor or co-advisor

** denotes post-doctoral researcher where Lassiter was primary mentor

Lassiter, JC, DW Anderson, D Villanueva-Lascurain, EW Marshall, JD Barnes, Xenolith constraints on “self-assimilation” and the origin of low $\delta^{18}\text{O}$ values in Mauna Kea basalts, AGU Volume “Isotopic Constraints on Earth System Science”, *in press*.

Cullen, JT, S Hurwitz, JD Barnes, **JC Lassiter**, S Penniston-Dorland, SA Kasemann, JJ Thordsen, Temperature-dependent variations in mineralogy, major element chemistry and the stable isotopes of boron, lithium and chlorine resulting from hydration of rhyolite: Constraints from hydrothermal experiments at 150 to 350 °C and 25 MPa, *Geochim. Cosmochim. Acta*. 261, 269-287, 2019.

Barnes, J, J Cullen, S Baker, A Agostini, S Penniston-Dorland, **JC Lassiter**, A Klugel, L Wallace, The role of the upper plate in controlling fluid-mobile element (Cl, Li, B) cycling through the Hikurangi accretionary prism, New Zealand, *Geosphere*, 15, 642-658, 2019. [2]

*Marshall, **JC Lassiter**, JD Barnes, On the (mis)behavior of water in the mantle: controls on nominally anhydrous mineral water content in mantle peridotites, *Earth Planet. Sci. Lett.*, 499, 219-229, 2018. [11]

Daly, RT, PH Schultz, **JC Lassiter**, SW Loewy, L Thompson, JG Spray, Contrasting meteoritic signatures at East and West Clearwater craters, *Geochim. Cosmochim. Acta*, 235, 262-284, 2018. [2]

Lassiter, JC, On the equilibration timescales of isolated trace phases in mantle peridotites: Implications for the interpretation of grain-scale isotope heterogeneity in peridotitic sulfides, *Earth Planet. Sci. Lett.*, 498, 427-435, 2018. [1]

*Marshall, EM, JD Barnes, **JC Lassiter**, The role of serpentinite-derived fluids in metasomatism of the Colorado Plateau (USA) lithospheric mantle, *Geology*, 45, 1103-1106, doi 10.1130/G39444.1, 2017. [5]

*Marshall, E, **JC Lassiter**, JD Barnes, A Luguét, M Lissner, Mantle melt production during the 1.4 Ga Laurentian magmatic event: Isotopic constraints from Colorado Plateau mantle xenoliths. *Geology*, 45, 519-522, doi:10.1130/G38891.1, 2017. [6]

*Gao, R, *G Ramirez, **JC Lassiter**, Origin of temporal compositional trends in monogenetic vent eruptions: Insights from the crystal cargo in the Papoose Canyon sequence, Big Pine Volcanic Field, CA. *Earth Planet Sci. Lett.*, 457, 227-237, 2017. [5]

*Chatterjee, RN, **JC Lassiter**, $^{186}\text{Os}/^{188}\text{Os}$ isotopic variations in upper mantle peridotites: Constraints on the Pt/Os ratio of primitive upper mantle, and implications late veneer accretion and mantle mixing timescales. *Chem. Geol.*, 442, 11-22. 2016. [9]

*Gao, R, **JC Lassiter**, J Barnes, D Clague, W Bohrsen, Geochemical investigation of gabbroic xenoliths from Hualalai Volcano: Implications for lower oceanic crust accretion and Hualalai Volcano magma storage system. *Earth Planet. Sci. Lett.*, 442, 162-172, 2016. [1]

*Byerly, BL, **JC Lassiter**, Trace element partitioning and Lu-Hf isotope systematics in spinel peridotites from the Rio Grande Rift and Colorado Plateau: Towards improved age assessment of clinopyroxene Lu/Hf-¹⁷⁶Hf/¹⁷⁷Hf in spinel peridotite. *Chem. Geol.*, 413, 146-158, 2015. [11]

Rowe, MC, **JC Lassiter**, K Goff, Basalt volatile fluctuations during continental rifting: An example from the Rio Grande Rift, USA. *Geochem. Geophys. Geosys.*, 16, d.o.i 10.1002/2014GC005649, 2015. [10]

*Chatterjee, R, **JC Lassiter**, High precision Os isotopic measurement using N-TIMS: Quantification of various sources of error in ¹⁸⁶Os/¹⁸⁸Os measurements. *Chem. Geol.*, 396, 112-123, 2015. [21]

Lassiter, JC, *BL Byerly, JE Snow, E Hellebrand, Constraints from Os-isotope variations on the origin of Lena Trough abyssal peridotites and implications for the composition and evolution of the depleted upper mantle *Earth Planet. Sci. Lett.*, 403, 178-187, 2014. [43]

*Byerly, BL, **JC Lassiter**, Isotopically ultradepleted domains in the convecting upper mantle: Implications for MORB petrogenesis. *Geology*, 42, 203-206, 2014. [33]

Sosa-Ceballos, G, JE Gardner, **JC Lassiter**, Intermittent mixing processes occurring before Plinian eruptions of Popocateptl volcano: insights from textural-compositional variations in plagioclase and Sr-Nd-Pb isotopes, *Contrib. Mineral. Petrol.*, 167, DOI 10.1007/s00410-014-0966-x, 2014. [12]

Arce, JL, PW Layer, JC Lassiter, JA Benowitz, JL Macias, J Ramirez-Espinosa, ⁴⁰Ar/³⁹Ar dating, geochemistry, and isotopic analyses of the quaternary Chichinautzin volcanic field, south of Mexico City: implications for timing, eruption rate, and distribution of volcanism. *Bull. Volcanol.* 75:774, DOI 10.1007/s00445-013-0774-6, 2013. [43]

*Byerly, BL, **JC Lassiter**, Evidence from mantle xenoliths for lithosphere removal beneath the central Rio Grande Rift, *Earth. Planet. Sci., Lett.*, 355-356, 82-93, 2012. [30]

Recipient, Jackson School of Geoscience Best Student Paper Award, 2012

Rowe, MC, **JC Lassiter, Chlorine enrichment in Central Rio Grande Rift basaltic melt inclusions: Evidence for subduction modification of the lithospheric mantle, *Geology*, 37, 439-442, 2009. [25]

Chan, L-H (deceased), **JC Lassiter**, EH Hauri, SR Hart, J Blusztajn, Lithium isotope systematics of lavas from the Cook-Austral Islands: Constraints on the origin of HIMU mantle, *EPSL*, 277, 433-442, 2009. [58]

Parai, R, S Mukhopadhyay, **JC Lassiter**, New constraints on the HIMU mantle from neon and helium isotopic compositions of basalts from the Cook-Austral Islands, *EPSL*, 277, 253-261, 2009. [63]

*Jamais, M, **JC Lassiter**, G Bruegmann, PGE and Os-isotopic variations in lavas from Kohala Volcano, Hawaii: Constraints on PGE behavior and melt/crust interaction, *Chem. Geol.*, 250, 16-28, 2008. [41]

Bizimis, M, **M Griselein, **JC Lassiter**, VJM Salters, G Sen, Ancient recycled mantle lithosphere in the Hawaiian plume: Osmium-hafnium isotopic evidence from peridotite mantle xenoliths, *Earth Planet. Sci. Lett.*, 257, 259-273, 2007. [114]

Lassiter, JC, Constraints on the coupled thermal evolution of the Earth's core and mantle, the age of the inner core, and the origin of the ¹⁸⁶Os/¹⁸⁸Os "core signal" in plume-derived lavas, *Earth Planet. Sci. Lett.*, 250, 306-317, 2006. [33]

Bryce, JG, DJ DePaolo, **JC Lassiter**. Geochemical structure of the Hawaiian plume: Sr, Nd and Os isotopes in the 2.8 km HSDP2 section of Mauna Kea volcano, *Geochem. Geophys. Geosys.* 6, doi 10.1029/2005GC000986, 2005. [94]

- *Rankenburg, K, **JC Lassiter**, G Brey, The Role of Continental Crust and Lithospheric Mantle in the Genesis of Cameroon Volcanic Line Lavas: Constraints from Isotopic Variations in Lavas and Megacrysts from the Biu and Jos Plateaux, *J. Petrol.*, 46, 169-190, 2005. [74]
- Lassiter, JC**, Role of recycled oceanic crust in the potassium and argon budget of the Earth: Towards a resolution of the “Missing argon” problem, *Geochem. Geophys. Geosys.*, 5, paper number 2004GC000711, 2004. [52]
- *Rankenburg, K, **JC Lassiter**, G Brey, Origin of megacrysts in volcanic rocks of the Cameroon volcanic chain - constraints on magma genesis and crustal contamination, *Contrib. Mineral. Petrol.*, 147, 129-144, 2004. [46]
- Lassiter, JC**, J Blichert-Toft, EH Hauri, HG Barszczus, Isotope and Trace Element Variations in Lavas from Raivavae and Rapa, Cook-Austral Islands: Constraints on the Nature of HIMU- and EM-Mantle and the Origin of Mid-Plate Volcanism in French Polynesia, *Chem. Geol.*, 202, 115-138, 2003. [94]
- Lassiter, JC**, Rhenium volatility in subaerial lavas: Constraints from subaerial and submarine portions of the HSDP-2 Mauna Kea drillcore, *Earth Planet. Sci. Lett.*, 214, 311-325, 2003. [76]
- Mukhopadhyay, S, **JC Lassiter**, KA Farley, SW Bogue, Geochemistry of Kauai shield-stage lavas: implications for the chemical evolution of the Hawaiian plume, *Geochem, Geophys., Geosys.*, 4, paper number 2002GC000342, 2003. [80]
- Lassiter, JC**, EH Hauri, IK Nikogosian, HG Barszczus, Chlorine-potassium variations in melt inclusions from Raivavae and Rapa, Austral Islands; Constraints on chlorine recycling in the mantle and evidence for brine-induced melting of oceanic crust, *Earth Planet. Sci. Lett.*, 202, 525-540, 2002. [102]
- Lassiter, JC**, JF Luhr, Osmium Abundance and Isotope Variations in Mafic Mexican Volcanic Rocks: Evidence for Crustal Contamination and Constrains on the Geochemical Behavior of Osmium during Partial Melting and Fractional Crystallization, *Geochem, Geophys., Geosys.*, 2, paper number 2000GC000116, 2001. [76]
- Lassiter, JC**, EH Hauri, PW Reiners, MO Garcia, Generation of Hawaiian Post-Erosional Lavas by Melting of a Mixed Lherzolite/Pyroxenite Source, *Earth Planet. Sci. Lett.*, 178, 269-284, 2000. [148]
- Lassiter, JC** and EH Hauri, Osmium-Isotope Variations in Hawaiian Lavas: Evidence for Recycled Oceanic Lithosphere in the Hawaiian Plume, *Earth Planet. Sci. Lett.*, 164, 483-496, 1998. [358]
- Lassiter, JC** and DJ DePaolo, Plume/Lithosphere Interaction in the Generation of Continental and Oceanic Flood Basalts: Chemical and Isotopic Constraints, in *Large Igneous Provinces, Am. Geophys. Union Monogr.* 100, 335-355, J Mahoney and M Coffin (eds.), 1997. [264]
- Lassiter, JC**, DJ DePaolo, and M Tatsumoto, Isotopic Evolution of Mauna Kea Volcano: Results from the initial phase of the Hawaii Scientific Drilling Project, *J. Geophys. Res.*, 101, 11769-11780, 1996. [146]
- Hauri, EH, **JC Lassiter**, and DJ DePaolo, Osmium Isotope Systematics of Drilled Lavas from Mauna Loa, Hawaii, *J. Geophys. Res.*, 101, 11793-11806, 1996. [203]
- Kurz, MD, TC Kenna, **JC Lassiter**, and DJ DePaolo, Helium Isotopic Evolution of Mauna Kea Volcano: First Results from the 1-km Drill Core, *J. Geophys. Res.*, 101, 11781-11791, 1996. [133]

Lassiter, JC, DJ DePaolo, and JJ Mahoney, Geochemistry of the Wrangellia Flood Basalt Province: Implications for the Role of Continental and Oceanic Lithosphere in Flood Basalt Genesis, *J. Petrol.*, 36, 983-1009, 1995. [116]

Papers currently in review, revision, or near submission

*Gao, R, **JC Lassiter**, D Clague, W Bohron. Geochemical variations in mafic and ultramafic xenoliths from Hualalai Volcano, Hawaii: Constraints on Hawaiian volcano plumbing and melt/crust interaction, *Chem. Geol.*, in revision.

*Bruce, LA, **JC Lassiter**, Effects of magma chamber processes on water and H₂O/Ce ratios in HIMU magmas from the Cook-Austral Islands: New insights from clinopyroxene phenocrysts, *Contrib. Mineral. Petrol.*, in revision.

Encyclopedia articles, editorials, and other non-peer reviewed publications

Lassiter, JC, J Blichert-Toft, EH Hauri, Corrigendum to “Isotope and Trace Element Variations in Lavas from Raivavae and Rapa, Cook-Austral Islands: Constraints on the Nature of HIMU- and EM-Mantle and the Origin of Mid-Plate Volcanism in French Polynesia” [CHEMG: 202, Issues 1-2 (15 Dec 2003); pages 115-138]. *Chem. Geol.* 474, 72-73, 2017.

Lassiter, JC, Thermal Ionization Mass Spectrometry, Earth Science Series, *Earth Science Series, Encyclopedia of Geochemistry* (WM White, Ed.). DOI 10.1007/978-3-319-39193-9_299-1, 2016.

Lassiter, J, Geophysics - Hawaiian plume dynamics (Editorial), *Science*, 285, 846-847, 1999. [2]