

CURRICULUM VITAE

John C Lassiter
Professor, Univ. Texas at Austin

Dept. Geological Sciences
John A. and Katherine G. Jackson School of Geosciences
The University of Texas at Austin
1 University Station C1100
Austin, Texas 78712-0254

Tel: (512) 471-4002
Fax: (512) 471-9425
email: lassiter1@jsg.utexas.edu

Languages

English (native speaker)
German (fluent)

Education

Dept. Terrestrial Magnetism, Carnegie Institute of Washington, DC, NSF Postdoctoral Research Fellow, 1995-1998
University of California at Berkeley, Ph.D. (Geology), 1990-1995
Brown University, BA (Geology, Political Science), 1985-1989 (Magna cum Laude)

Professional Experience

2018-present	Full Professor, Dept. Geological Sciences, Univ. Texas, Austin
2008-2018	Associate Professor, Dept. Geological Sciences, Univ. Texas, Austin
2004-2008	Assistant Professor, Dept. Geological Sciences, Univ. Texas, Austin
1999-2004	Staff Scientist, Max-Planck-Institut für Chemie, Mainz, Germany

Professional Societies

Member, American Geophysical Union
Member, Geochemical Society

Department and University Service

Graduate Advisor, Jackson School of Geosciences, August 2016-present
Chair, Graduate Studies Committee, Jackson School of Geosciences, August 2016-present
Ex-officio Member, Graduate Admissions and Support Committee, Jackson School of Geosciences, August 2016-present
2017 Scientific leader of the JSG undergraduate honors program field trip to Oahu and Hawaii (3/5/17-3/13/17)
Chair, Graduate Studies Committee ad hoc subcommittee on PhD program strategic planning, Fall 2015-Spring 2016
Member, Department of Geological Sciences faculty annual evaluation ad hoc committee, Spring 2016

Vice chair, Faculty Council sub-committee on financial aid, 2015-2016
Member, Faculty Council sub-committee on financial aid, 2015-present
Member, UT Global Research Fellowship program review committee, Fall 2016-present
Reviewer for Jackson School applicants to Undergraduate Research Fellows program, 2015-present
Member, Faculty Council, 2014-present
Member, Petrology Search Committee (2013, 2014)
Member, ICP-MS Lab Manager Search Committee (2012)
Member, Jackson School of Geoscience Strategic Planning Committee (2009-2011)
Chair, ICP-MS Lab Manager Search Committee (2009)
Member, Undergraduate Geology BS Degree Curricular Review Committee (2007)
Member, JSG Core/Mantle/Crust Search Committee (2007)
Member, Department Chair Search Committee (2007)
Member, Department Strategic Planning Committee (2006)
Member, Graduate Studies Committee (2004-present)
Member, Petrology/Geochemistry Curricular Studies Committee/ERG/Discipline (2004-present)
Member, Research Scientist Support Restructure Committee (2005)
Organized and administered Technical Sessions (2005-2006)

Community Service

NASA Solar System Workings proposal review panel member, 2018
Associate Editor, Journal of Geophysical Research, 2017-present
Regional Judge, Siemens National Science Fair Competition, 2016
Special Session co-organizer and co-chair, VM Goldschmidt Conference, Yokohama, Japan, 2016
Special Session co-organizer, VM Goldschmidt Conference, Sacramento, CA, 2014
NSF-EAR Petrology and Geochemistry Proposal Review Panel Member, Fall 2008-Fall 2010
Participant, CIDER (Cooperative Institute for Dynamic Earth Research) planning workshop and contributor to CIDER White Paper, 2008
National Antineutrino Sciences Center (NASC) Initiative Collaboration Council Member (2008)
Contributor, Deep-Ocean Anti-Neutrino Observatory White Paper, 2007
Participant, NSF-CSEDI planning workshop, 2004
Frequent reviewer for NSF-EAR, NSF-OCE, NRC, ERC, DFG
Frequent reviewer for *EPSL*, *Geochim. Cosmochim. Acta*, *Science*, *Nature*, *Chem. Geol.*, *G³*, and other journals)
Associate editor, *Reviews of Geophysics*, 2002-2004

Awards and Fellowships

DAAD (German Academic Exchange Service) Faculty Research Visit Grant, 2019
DAAD (German Academic Exchange Service) Faculty Research Visit Grant, 2015
G. Moses and Carolyn G. Knebel Distinguished Teaching Award, 2012
G. Moses and Carolyn G. Knebel Distinguished Teaching Award, 2008
National Science Foundation Postdoctoral Fellowship, 1995-1997
The Berkeley Fellowship, 1993-1995
National Science Foundation Graduate Research Fellowship, 1990-1993
Member, Phi Beta Kappa honor society, Brown University, Elected 1989
Member, Sigma Xi science honor society, Brown University, Elected 1989

Former and Current Students and Post-doctoral Researchers from Univ. Texas

Alexa Holmes (UT Austin PhD student; 09/18-present; co-supervisor J Barnes)
Scott Eckley (UT Austin PhD student; 09/18-present; co-supervisor R Ketcham)
Daniel Villanueva (UT Austin PhD student; 09/17-present; recipient of CONACYT fellowship)
Edward Marshal (UT Austin PhD student; 09/12-05/18; co-supervisor J Barnes)
Daniel Anderson (UT-Austin; undergraduate honors student; 09/16-05/18)
Leslie Bruce (UT Austin MS student; completed Summer, 2017)
Ruohan Gao (UT Austin PhD completed Summer, 2016); Has accepted Assistant Professor position at China University of Geosciences at Wuhan
Rudra Chatterjee (UT Austin PhD completed Summer, 2016); Currently employed as Research Scientist Associate in the Department of Geological Sciences, UT Austin
Gabrielle Ramirez (UT-Austin; undergraduate honors student; 09/13-05/15; co-supervisor J Barnes); currently enrolled in PhD program in Geological Sciences at Penn State University
Benjamin Byerly (UT Austin PhD completed Spring 2014); Currently postdoctoral researcher at LSU
Fatma Geneli (visiting PhD student; METU, Turkey, 9/9-9/10); Aksaray University
Lindsay Szramek (UT-Austin; PhD completed Summer 2010; co-supervisor J. Gardner); currently Asst. Prof. of Geology, Austin Peay State Univ.
Julie Mitchel (UT-Austin; undergraduate honors student; 05/07-05/08); currently enrolled in PhD program in Geological/Planetary Science at Arizona State Univ.
Michael Rowe (Postdoctoral researcher, UT-Austin, 08/2006-08/2007); currently Senior Lecturer at Univ. Auckland, New Zealand.

Former Students and Post-Doctoral Researchers from Max-Planck Institute

Melanie Griselin (Max-Planck Institut, Marie Curie Postdoctoral Fellow, 2002-2004)
Marie Jamais (Max-Planck Institut, PhD completed 02/2007)
Kai Rankenburg (Max-Planck Institut, PhD completed 11/2003); currently Instrumentalist, Univ. Western Australia

Graduate Student Committees

Ruohan Gao (Dissertation Committee; advisor, graduated summer 2016)
Rudra Chatterjee (Dissertation Committee; advisor, graduated summer, 2016)
Benjamin Byerly (Dissertation Committee; advisor, graduated 2014)
Edward Marshall (Dissertation Committee; co-advisor)
Lindsay Szramek (Dissertation Committee; co-advisor, graduated 2010)
Benjamin Andrews (Dissertation Committee; graduated 2010)
Giovanni Sosa (Dissertation Committee; graduated 2011)
Jeff Lin (Dissertation Committee; graduated 2015)
Jin Liu (Dissertation Committee, current)
Jing Yang (Dissertation Committee, current)
Jacob Jordan (Dissertation Committee; current)
Jie Xu (Dissertation Committee, current)
Jeffrey Cullen (Dissertation Committee; current)
Romy Hanna (Dissertation Committee; current)
Leslie Bruce (Thesis Committee; advisor, current)

James Hixon (Thesis Committee)
Charles Lu (Thesis Committee)
Yongfei Zhang (Examining Committee)
Ryan Ewing (Examining Committee)
Ed Lane (Examining Committee)
Lindsay Lowe (Examining Committee)

Teaching Interests

Teaching interests include introductory and advanced courses and seminars in all areas of petrology and geochemistry; theory and applications of stable and radiogenic isotope geochemistry; origin of the Earth and solar system; geodynamics; introductory physical geology for majors and non-majors; integrated evolution of Earth's surface, interior, and biosphere.

Courses taught at UT Austin:

GEO 401 Introduction to Physical Geology (Introductory-level Undergraduate)
GEO 391/GEO 388T High-temperature Geochemistry (Graduate level)
GEO 376T High-temperature Geochemistry (Upper-division Undergraduate): Beginning in Fall, 2015 this course became a Writing Flag course.
GEO 303C Introduction to the Solar System (Introductory-level Undergraduate)
GEO 391 Meteoritics and Early Solar System Processes (Graduate level)
GEO 391 Earth In Deep Time (Graduate level)
Severn Institute (UT Global Initiative) Short Course on "Origin and Early Evolution of the Earth and Solar System"

Two-time Distinguished Teaching Award winner (2008, 2012).
Average overall student evaluation of instructor (2004-present): 4.3 (on 5-point scale)
Average since Fall, 2009: 4.5 (For comparison, average of all instructors in Jackson School of Geoscience over same period: 4.1)

Research Interests

Application of isotope and trace element geochemistry to fundamental problems of the Earth's origin and evolution, including but not limited to: Structure and chemical evolution of the mantle and crust; Origin of mantle plumes and nature of plume/lithosphere interaction; Generation and segregation of magma; Origin and chemical evolution of cratonic lithosphere; Chemical fluxes in constructive and destructive tectonic environments; Thermal and chemical evolution of Earth's core; Early (first ~100 Ma) chemical and thermal evolution of the Earth. Research interests also extend to the origin and evolution of other solar system objects, including the Moon, Mars, and meteorites; processes and timescales of planetary accretion and differentiation; origin and evolution of the Earth's atmosphere and hydrosphere; and development of novel radiogenic and stable isotope systems and analytical techniques for application in the Geological Sciences.

Laboratory Design, Construction Oversight, and Management

At UT Austin Dr. Lassiter lead the successful design, construction, and set-up of a new positive pressure geochemistry clean laboratory with Class 10 workstations for the preparation of geologic material for isotopic analysis. This laboratory now routinely prepares samples for analysis of Sr-,

Nd-, Pb-, Hf-, Os-, and Li-isotopes. In addition, Dr. Lassiter acquired NSF funding to purchase a new thermal ionization mass spectrometer with positive and negative ion capability, and oversaw the purchase and installation of a *TE Triton* mass spectrometer in 2007. This instrument is utilized by my research group as well as a wide range of internal and external users involved in numerous scientific collaborations. Both the geochemistry clean laboratory and mass spectrometer operate under my direct management. Dr. Lassiter also shares oversight of the department's *Nu Plasma 3D* MC-ICP-MS, which was installed in 2017 with funding from an NSF-EAR MRI grant (Dr. Lassiter co-PI).

External and Internal Research Funding (2004-present)

National Science Foundation Peer-reviewed Funding:

- 1) Collaborative Research:** Using Os-Pb isotope variations in MORB and Abyssal Peridotite sulfides to examine lithologic heterogeneity and reactive melt transport in MORB petrogenesis. PI Lassiter (UT portion). Budget: \$328,262 (UT portion). 8/1/17-7/31/19 (NSF-OCE MG&G).
- 2) Insights into Hawaiian Magma Storage and Melt/Crust Interaction from Geochemical and Petrologic Investigation of Xenoliths from Hualalai and Mauna Kea Volcanoes.** PI Lassiter. Budget: \$317,000. 3/1/17-2/28/19 (NSF-EAR P&G).
- 3) MRI:** Acquisition of a multicollector inductively coupled plasma mass spectrometer for Earth Science Research at the University of Texas at Austin. PI Banner, co-PIs Koleszar, Lassiter, Stockli, Walther. Budget: \$609,431. 8/1/15-7/31/17 (NSF-EAR MRI)
- 4) Fluid-mobile and volatile element (Cl, B, and Li) cycling through the forearc:** Case study of cold and thermal spring geochemistries from the Hikurangi accretionary prism, New Zealand. PI Barnes, co-PI Lassiter. Budget: \$228,508. 1/1/16-12/31/18 (NSF GeoPRISMS)
- 5) CSEDI:** Constraining the mechanisms of melt transport, storage, and crustal contamination from temporal geochemical variations in monogenetic vents. PI Lassiter, co-PIs Barnes, Hesse. Budget: \$335,452. 5/1/13-4/30/16 (NSF-EAR CSEDI).
- 6) Models for the origin of $^{186}\text{Os}/^{188}\text{Os}$ and $^{187}\text{Os}/^{188}\text{Os}$ isotope variations in the mantle:** Core signal, recycled components, or intra-mantle differentiation. PI Lassiter. Budget: \$224,084. 7/15/13-6/30/16 (NSF-EAR P&G).
- 7) Geochemical investigation of xenoliths from the central Rio Grande Rift and Colorado Plateau:** Constraints on lithosphere evolution and possible delamination. PI Lassiter. Budget: \$214,053. 7/15/09-7/14/12 with no-cost extension to 7/14/13 (NSF-EAR P&G).
- 8) Collaborative Research;** Constraining the relative importance of fluid fluxes and lithospheric metasomatism on the evolution of the Rio Grande Rift, New Mexico. PI Lassiter (UT portion). Budget: \$57,980 (UT portion). 7/01/08-06/30/11 (NSF-EAR P&G).
- 9) Acquisition of a Solid-State 193-nm Laser-Ablation System.** PI Carlson, co-PIs Heister, Horton, Lassiter, Gardner. Budget: \$97,500. 9/15/07-9/14/08 (NSF-EAR/IF).
- 10) Collaborative Research:** Continental or Oceanic Provenance of Lena Trough Peridotites. PI Lassiter, co-PI Housh (UT portion). Budget: \$86,777 (UT portion). 1/1/07-12/31/08 (NSF-OCE MG&G).

11) Acquisition of a thermal ionization mass spectrometer with positive and negative ion capability for high-precision isotope analysis of geologic materials. PI Lassiter, co-PIs Housh, Connelly, Banner. Budget: \$308,712. 1/1/07-12/31/08 (NSF-EAR/IF).

12) Melt inclusion study of water and chlorine abundances in HIMU- and EM-type mantle. PI Lassiter. Budget: \$212,923. 6/1/05-5/31/08 (NSF-EAR).

13) Acquisition of a Fourier Transform Infrared (FTIR) Spectroscopy System: Measuring volatiles in magmatic and ore-forming systems. PI Gardner, co-PIs Lassiter, Kyle. Budget: \$107,400. 3/15/05-12/31/06 (NSF-EAR/IF).

Total NSF funding awarded in the period 2004-present: \$3,128,082

Since joining the UT faculty in 2004, Dr. Lassiter has had a NSF proposal success rate of nearly 50% (46%). During the same period, the funding rate for the NSF EAR Petrology & Geochemistry and NSF OCE Marine Geology and Geophysics programs (the primary sources of Dr. Lassiter's funding) have averaged <25%. Dr. Lassiter's proposal success rate is thus ~2x the NSF average for the programs from which he receives funding.

Jackson School of Geosciences Internally-reviewed Funding:

14) Cool and Wet or Hot and Dry? Constraining the Role of Volatiles in Melt and Crust Generation Processes in Arc Settings: A Case Study from the Central American Arc. PI Lassiter, co-PIs Gardner, Van Avendonk, McIntosh. Budget: \$176,000. 8/1/06-7/31/08 (JSG Research Initiative).

15) Acquisition of a thermal ionization mass spectrometer with positive and negative ion capability. PI Lassiter, co-PIs Housh, Connelly, Banner. Budget: \$170,000. 11/7/05-8/31/07 (JSG Equipment Matching Program).

16) JSG 2012 Seed Grant: Linking of Lithium and Chlorine Isotopes: tracers of source or processes? PIs Barnes and Lassiter. Budget \$8,275. 1/1/13-12/31/13.

17) JSG 2015 Seed Grant: Volatile source and flux through the Hikurangi accretionary prism, New Zealand. Budget \$22,038. PI Barnes, co-PIs Lassiter, Wallace.

18) JSG 2015 Seed Grant: Technique Development: *In Situ* analysis of PGEs and other trace metals in sulfides, chromitites, and other accessory phases via LA-ICP-MS. Budget: \$23,592. PI Lassiter.

Other Research Awards:

19) German Academic Exchange Service (Deutscher Akademischer Austausch Dienst) Faculty Research Visit Grant. Budget: 2150 Euro. 6/1/15-6/31/15.

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. Cosomchim. 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- $^{176}\text{Hf}/^{177}\text{Hf}$ 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 $^{186}\text{Os}/^{188}\text{Os}$ 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, $^{40}\text{Ar}/^{39}\text{Ar}$ 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 Griselin, **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 $^{186}\text{Os}/^{188}\text{Os}$ "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 Bohrsen. 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]

Professional Conference and Workshop Presentations (incomplete list)

(note: presenting author shown in bold type; * denotes student or post-doc presentation)

Lassiter, JC, D Villanueva-Lascurain, A Satkowski, SL Loewy, Evidence for post-eruptive modification of Li-isotopes and water content in olivine and clinopyroxene phenocrysts from Austral Islands basalts during cooling of lava flows., Fall AGU, 2019.

KP Hobbs, LJ Elkins, **JC Lassiter**, CM, Burberry, N Hoang, Characterizing lithospheric mantle using xenoliths in alkaline basalts from southern Vietnam: implications for mantle dynamics during extrusion tectonics, Fall AGU, 2019.

Lassiter, JC, JD Barnes, A Holmes, Y Yang, New constraints from halogen abundances and lithium isotopes on the behavior of water in the mantle, VM Goldschmidt Conference, 2019.

*Anderson, D, **J Lassiter**, E Marshall, Xenolith Constraints on “Self Assimilation” and the Origin of Low $\delta^{18}\text{O}$ Values in Mauna Kea Basalts, VM Goldschmidt Conf., Boston, USA, 2018.

***Marshall, E**, J Lassiter, J Barnes, Understanding the (Mis)behavior of Water Contents in Nominally Anhydrous Mantle Minerals, VM Goldschmidt Conf., Boston, USA, 2018.

Elkins, LJ, A Marzoli, M Bizimis, CM Meyzen, S Callegaro, N Sorsen, JC Lassiter, M Ernesto, Mantle sources for Central Atlantic Magmatic Province basalts from Hf isotopes, Fall AGU, 2017.

***Marshall, EM**, JC Lassiter, JD Barnes, New constraints on 1.4 Ga Laurentian granite magmatism from Colorado Plateau mantle peridotite xenoliths, Geol. Soc. Amer. Conf., 2017.

Lassiter, JC, LA Bruce, The Effects of Deep Degassing on H₂O/Ce in Ocean Island Basalts, VM Goldschmidt Conf., Paris, France, 2017.

***Daly, RT**, P Schultz, J Lassiter, L Thompson, J Spray, The unusually high projectile component at East Clearwater crater and absence of an impactor signature at West Clearwater. Lunar & Planetary Science Conference, 2017.

Lassiter, JC, Constraints on the origin of Os-isotope disequilibrium in included and interstitial sulfides in mantle peridotites: Implications for the interpretation of Os-isotope signatures in MORB and Abyssal Peridotites, Fall AGU, 2016.

- ***Bruce, LA**, JC Lassiter, E Marshall, Effects of magma chamber processes on water content and H₂O/Ce ratios in HIMU magmas from the Cook-Austral Islands: New insights from clinopyroxene phenocrysts, Fall AGU, 2016.
- Lassiter, JC**, Evidence for and consequences of melting a marble-cake mantle, VM Goldschmidt Conf., Yokohama, Japan, 2016.
- ***Marshall, E**, J Lassiter, J Barnes, Constraints on the petrogenesis of the Laurentian 1.4 Ga pluton belt: A Sm-Nd and Lu-Hf isotope study of peridotite xenoliths from the Colorado Plateau, VM Goldschmidt Conf., Yokohama, Japan, 2016.
- Arce, JL**, PW Layer, JC Lassiter, J Benowitz, J Ramirez, JL Macias, ⁴⁰Ar/³⁹Ar dating of the Quaternary Chichinautzin Volcanic Field, south of Mexico City: Implications for timing, effusion rate, and distribution of the volcanism, Spring AGU, 2015
- ***Gao, R**, G Ramirez, JC Lassiter, Origin of temporal-compositional variations in monogenetic vent eruptions: Insights from the crystal cargo in the Papoose Canyon sequence, Big Pine Volcanic Field, CA. Fall AGU, 2014.
- ***Chatterjee, RN**, JC Lassiter, ¹⁸⁶Os/¹⁸⁸Os isotopic compositions of peridotites: Constraints on melt depletion and Pt/Os evolution of the upper mantle. Fall AGU, 2014.
- ***Marshall, E**, J Barnes, JC Lassiter, Stable isotopic constraints on formation of continental lithospheric mantle: a case study from the Colorado Plateau. Fall AGU, 2014.
- ***Byerly, BL**, Lassiter, JC, Challenging the assumptions of Lu-Hf dating in spinel peridotites. Fall AGU, 2013.
- ***Gao, R**, JC Lassiter, Constraints on the composition and hydrothermal alteration history of the Pacific lower crust beneath the Hawaiian Islands: Geochemical investigations of gabbroic xenoliths from Hualalai volcano. Fall AGU, 2013.
- ***Chatterjee, R**, JC Lassiter, Os isotopic composition of steels: Constraints on sources of Os in steel and crustal isotopic evolution of iron ores. Fall AGU, 2013.
- ***Marshall, E**, JD Barnes, JC Lassiter, Stable isotopic (O, H) evidence for hydration of the central Colorado Plateau lithosphere. Fall AGU, 2013.
- Lassiter, JC**, BL Byerly, How depleted is the upper mantle? Constraints from elemental-Os isotope correlations in abyssal peridotites and ocean island xenoliths. *Goldschmidt Conf. Abstracts*, Florence, Italy, August 2013.
- ***Byerly, BL**, JC Lassiter, Subduction modification of western North America lithosphere – priming for destruction? *Goldschmidt Conf. Abstracts*, Florence, Italy, August 2013.
- ***Byerly, BL**, JC Lassiter, Ultra-depleted isotopic compositions in fertile asthenosphere-derived peridotites: constraints on the composition of the upper mantle, Fall AGU, 2012.

- Lassiter, JC**, R Chatterjee, S Zhang, S Loewy, Evaluation of sources of error in $^{186}\text{Os}/^{188}\text{Os}$ measurements via N-TIMS. 22nd Annual V.M. Goldschmidt Conference, Montreal, Canada, June 2012.
- ***Byerly, BL**, JC Lassiter, Constraints on the timing and tectonic setting of mantle metasomatism beneath the Colorado Plateau and Rio Grande rift, Fall AGU, 2011.
- ***Chatterjee, R**, JC Lassiter, Isotopic evidence from lavas and mantle xenoliths for a mixed asthenospheric-lithospheric source for Rio Grande magmas, Fall AGU, 2011.
- Lassiter, JC**, Multi-stage melting history of the depleted mantle recorded in major element-Os isotope variations of abyssal peridotites and ocean island xenoliths, Fall AGU, 2011.
- Hanson, C**, Kyle, J.R., Cloos, M, Lassiter, J, Isotopic stragigraphy and fluid tracing in the Gunung Bijih skarn, Ertsberg District, Papua, Indonesia. GSA Annual Meeting, Minneapolis, MN, 2011.
- Lassiter, JC**, Gao, R, Geochemical Investigation of Gabbroic Xenoliths from Hualalai Volcano, Hawaii, Goldschmidt Conference, Prague, Czech Republic, 2011.
- ***Byerly, BL**, Lassiter, JC, Geochemical Evidence for Lithosphere Delamination beneath the Rio Grande Rift, Goldschmidt Conference, Prague, Czech Republic, 2011.
- ***Rowe, MC**, Lassiter, JC, Schmandt, BM, Basaltic Magmatism and Mantle Metasomatism in the Rio Grande Rift, Goldschmidt Conference, Prague, Czech Republic, 2011.
- ***Rowe, MC**, Lassiter, JC, Temporal and spatial variations in the mantle source regions for basaltic magmatism in an active rift system: Evidence from melt inclusions in the Rio Grande Rift, Geol. Soc. America Annual Meeting, 2010.
- Geneli, F**, MC Goncuoglu, J Lassiter, KF Toksoy, Eocene post-collisional volcanism in the Central Anatolian Crystalline Complex, Turkey: petrology and geodynamic significance, Επιστημονική Επετηρίδα του Τμήματος Γεωλογίας (ΑΠΘ) 39 (1/2), 127-128, 2010.
- ***Byerly, B**, JC Lassiter, Geochemical constraints on the extent of lithosphere removal beneath the central Rio Grande Rift, Fall AGU, 2009.
- Sosa, G**, JE Gardner, JC Lassiter, Magma evolution during the last 23 ky at Popocateptl Volcano: Insights from Sr, Nd, and Pb isotopes in plagioclase, pyroxenes, and pumice matrix, Fall AGU, 2009.
- Lassiter, JC**, JE Snow, Os-isotope constraints on the origin of Lena Trough peridotites, Arctic Ocean: Asthenospheric mantle or continental lithosphere? Fall AGU, 2009.
- Lassiter, JC**, JE Snow, Os-isotope constraints on the origin of Lena Trough peridotites, Arctic Ocean: Asthenospheric mantle or continental lithosphere? Geochim. Cosmochim. Acta 73, A725, Goldschmidt Conference, Davos, Switzerland, 2009.
- ***Rowe, MC**, JC Lassiter, DW Peate, A Newberry, Chlorine as an indicator of crustal contamination and lithosphere metasomatism in the Rio Grande Rift and Jemez Lineament, New Mexico, North Central GSA, Rockford, IL, 2009.

Lassiter, JC, EH Hauri, SR Hart, J Blusztajn, L-H Chan (deceased), Lithium isotope variations in lavas and olivine phenocrysts from the Cook-Austral Islands: Constraints on sample alteration and the true Li-isotope signature of HIMU mantle, Fall AGU, 2008.

(Invited) Lassiter, JC, The Elephants' Graveyard: Constraints from Mantle Plumes on the Fate of Subducted Slabs and Implications for the Style of Mantle Convection, Fall AGU, 2007.

***Lassiter, JC, MC Rowe**, Constraints on Lithospheric Enrichment and Crustal Contamination in the Central Rio Grande Rift: Evidence From Basaltic Melt Inclusions, Fall AGU, 2007.

***Szramek, LA, JC Lassiter**, Chlorine and Potassium Flux Into the Mantle via Subduction of Oceanic Crust: Constraints From Melt Inclusions in HIMU Lavas, Fall AGU, 2007.

***Rowe, MC, JC Lassiter**, Constraints on lithospheric enrichment and crustal contamination in the central Rio Grande Rift (New Mexico, U.S.A.): Volatile and trace-element variability in basaltic melt inclusions, 17th Annual V.M. Goldschmidt Conference, Cologne, Germany, 2007.

***Szramek, LA, JC Lassiter**, Efficiency of Cl recycling during subduction of oceanic crust: Constraints from melt inclusions in HIMU lavas, 17th Annual V.M. Goldschmidt Conference, Cologne, Germany, 2007.

Schweikers, J, D Tuttas, C Bouman, JC Lassiter, TB Housh, Detector strategies to measure Os isotope ratios in small samples by NTIMS, 17th Annual V.M. Goldschmidt Conference, Cologne, Germany, 2007.

(Invited) Lassiter, JC, Earth's Energy Budget, Deep-Ocean Anti-Neutrino Observatory Workshop, Honolulu, HI, March 22-26, 2007.

(Invited) Lassiter, JC, Effects of a core/mantle chemical boundary layer with variable internal heat production on the thermal evolution of the core, Fall AGU, 2006.

Chan, LH, SR Hart, J Blusztajn, JC Lassiter, FA Frey, EH Hauri, Lithium isotopic composition of mantle plumes and the distribution of Li isotopes among Earth's reservoirs, Fall AGU, 2006.

Parai, R, S Mukhopadhyay, JC Lassiter, New constraints on the HIMU source from Helium and Neon isotopic compositions of basalts from the Cook Austral Islands, Fall AGU, 2006.

(Invited) Lassiter, JC, Constraints on the age of the Earth's inner core and the origin of the $^{186}\text{Os}/^{188}\text{Os}$ "core signal" in plume-derived lavas, 16th Annual V.M. Goldschmidt Conference, Melbourne, Australia, 2006.

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 $^{186}\text{Os}/^{188}\text{Os}$ core(?) signal in plume-derived lavas, Eos Trans., AGU, 86, F 1959, 2005.

Chan, L-H, JC Lassiter, SR Hart, J Blusztajn, EH Hauri, Lithium isotopic compositions of lavas from Samoan and Austral volcanic chains: Constraints on the source components of mantle reservoirs, Eos Trans., AGU, 86, F1985, 2005.

- *Jamais, M**, JC Lassiter, Os isotopic variations in lavas from Kohala Volcano, Hawaii: Constraints on melt/crust interaction, EUG General Assembly, Vienna, 2005.
- Mukhopadhyay, S**, JC Lassiter, Helium isotopic measurements from Raivavae and Rapa, Cook-Austral islands: New insights into the nature of the HIMU component, *Geochim. Cosmochim. Acta*, 69, Suppl. S, A107, 2005
- (Invited) Lassiter, JC**, Constraints on mantle mixing rates from evidence for ancient recycled lithosphere in mantle plumes. Invited lecture at Gordon Conference on the Earth's Interior, Mt. Holyoke College, June 12-17, 2005
- (Invited) Lassiter, JC**, Heat producing elements and secular cooling of the Earth: A geochemical perspective, NSF CSEDI planning workshop, Feb., 2004.
- Bizimis, M**, JC Lassiter, VJM Salters, G Sen, M Greselin, Extreme Hf-Os isotope compositions in Hawaiian peridotite xenoliths: Evidence for an ancient recycled lithosphere, *Eos Trans.*, AGU, 85, F1919, 2004.
- Ionov, DA**, JC Lassiter, AW Hofmann, The age of the lithospheric mantle in the Central Asian Lithospheric Belt from Os isotope data on xenoliths, *Geochim. Cosmochim. Acta*, 68, Suppl. S, A712, 2004.
- Lassiter, JC**, Platinum-group element variations in Hawaiian lavas: Constraints on the role of sulfides during melt generation and fractional crystallization, *Eos Trans.*, AGU, 84, F1598, 2003.
- Frey, FA**, S Huang, J Blichert-Toft, M Regelous, JC Lassiter, Depleted components within the Hawaiian plume, *Eos Trans.*, AGU, 84, F1645, 2003.
- Lassiter, JC**, Evidence for Re Loss During Magma Degassing: Implications for Re Concentration Variations in OIB and MORB, *Eos Trans.*, AGU, 83, F1446, 2002.
- Lassiter, JC**, The Influence of Recycled Crust on the Potassium and Argon Budget of the Earth, *Gold. Conf. Abstr.*, *Geochim. Cosmochim. Acta Suppl.*, 66, A433, 2002.
- *Griselin, M**, JC Lassiter, Extreme Unradiogenic Os Isotopes in Hawaiian Mantle Xenoliths: Implications for Mantle Convection, *Gold. Conf. Abstr.*, *Geochim. Cosmochim. Acta Suppl.*, 66, A292, 2002.
- Tekley, M**, AW Hofmann, GE Bruegmann, JC Lassiter, Chemical and Sr-Nd-Pb-Os Isotope Variations in Tholeiitic and Alkaline Flood Basalts from Eritria: Evidence for Recycled Depleted Oceanic Crust in the Afar Plume, *Gold. Conf. Abstr.*, *Geochim. Cosmochim. Acta Suppl.*, 66, A767, 2002.
- Lassiter, JC**, Evidence for Re Loss During Magma Degassing: Implications for Re Concentration Variations in OIB and MORB, Highly Siderophile Elements Workshop, Nancy, France, 2002.
- *Griselin, M**, G Bruegmann, JC Lassiter, PGE and Trace Element Systematics in Hawaiian Mantle Xenoliths: Implications for the Behavior of PGE During Melt Extraction and Melt/Rock Interaction, Highly Siderophile Elements Workshop, Nancy, France, 2002.
- (Invited) Lassiter, JC**, The Role of Recycled Oceanic Crust in the Earth's Chemical Mass Balance: Do We Really Need a Layered Mantle?, Superplume Workshop, Tokyo, 2002.

***Griselin, M**, JC Lassiter, Extreme Unradiogenic Os Isotopes in Hawaiian Mantle Xenoliths: Evidence for Preservation of Ancient Melt-Depleted Domains in the Convecting Upper Mantle, Eos Trans., AGU, 82, F1306, 2001.

Lassiter, JC, **EH Hauri**, Constraints on Melt/Lithosphere and Melt/Hydrosphere Interaction from the Volatile Budgets of Melt Inclusions from the Austral Islands, 11th Ann. Goldschmidt Conf., Abstract #3639, 2001.

JC Lassiter, EH Hauri, I Nikogosian, HG Barszczus, Origin of Chlorine-Rich Melt Inclusions from Raivavae, Austral Islands: Evidence for Altered-Lithosphere Assimilation by Ascending Magmas, EUG XI, J. Conf. Abstr., 6, 445, 2001.

***Rankenburger, K**, J Lassiter, G Brey, Isotopic Evolution of Alkalai-Basalts and Associated Megacrysts of Biu- and Jos-Plateau, Northern Cameroon Volcanic Line, EUG XI, J. Conf. Abstr., 6, 610, 2001.

***Rankenburger, K**, J Lassiter, G Brey, Constraints on Crustal Contamination in Cameroon Volcanic Line Lavas from Isotopic Study of Cognate, Mantle-Derived Megacrysts, Eos Trans., AGU, 81, F1379, 2000.

(Invited) **Lassiter, JC**, EH Hauri, I Nikogosian, HG Barszczus, Generation of Chlorine-Rich Melt Inclusions from Raivavae, Austral Islands by Partial Melting of Hydrothermally Altered Lithosphere, Eos Trans., AGU, 81, F1369, 2000.

Lassiter, JC, Distinguishing Mantle and Crustal Signatures in Os-Isotope Variations of Evolved Lavas: Constraints Stemming from the Compatibility of Osmium During Fractional Crystallization, Eos Trans., AGU, 81, F1339, 2000.

Lassiter, JC, EH Hauri, I Nikogosian, Major and Trace Element Variations in Melt Inclusions from Raivavae, Austral Islands: Constraints on Source Heterogeneity and Melt/Lithosphere Interaction, Melt Inclusion Workshop, Grenoble, France, 2000.

Lassiter, JC, J Blichert-Toft, EH Hauri, HG Barszczus, Isotope and trace-element variations in HIMU lavas from Raivavae, Austral Islands: Evidence for Recycled Crust in the HIMU Source and Constraints on the Importance of Recycled Crust in the Chemical Mass Balance of the Earth, Plume 3, 2000.

Lassiter, JC, JF Luhr, Osmium-Isotopic and Abundance Variations in Mexican Arc Lavas: Constraints on the Partitioning of Osmium in Arc and Non-arc settings, 9th Ann. Goldschmidt Conf., LPI Contrib. 971, 166, 1999.

Mukhopadhyay, S, JC Lassiter, SW Bogue, KA Farley, Isotopic evolution of Kauai shield-stage lavas, 9th Ann. Goldschmidt Conf., LPI Contrib. 971, 204-205, 1999.

Hauri, E, P Tomascak, J Lassiter, Crustal recycling or core-mantle interaction? Stable isotopic signatures of Hawaiian basalts, 9th Ann. Goldschmidt Conf., LPI Contrib. 971, 118-119, 1999.

Tomascak, PB, EH Hauri, JC Lassiter, Lithium isotope constraints on Hawaiian plume components, Eos Trans., AGU, 80, S354, 1999.

Lassiter, JC, EH Hauri, PW Reiners, MO Garcia, Evidence for melting of garnet pyroxenite in the generation of Hawaiian post-erosional lavas: effects of a marble-cake mantle during melt generation, 8th Ann. Goldschmidt Conf., Min. Mag. 62A, 856-857, 1998.

- Lassiter, JC**, EH Hauri, HG Barszczus, Influence of the Austral Fracture Zone on the Composition of Lavas from Raivavae, Austral Islands: Evidence for Crustal Assimilation during Magma Ascent and Evolution, *Eos Trans.*, AGU, 79, S378, 1998.
- (Invited) Lassiter, JC**, Plume/Lithosphere Interaction in the Generation of Continental Flood Basalts: Constraining the Role of the Lithospheric Mantle During Melt Production, Workshop on Continental Roots, Harvard University, 1997.
- Lassiter, JC**, EH Hauri, PW Reiners, M Garcia, Os-Isotope Evidence for a Pyroxenitic Source Component in Hawaiian Post-Erosional Lavas, *Eos Trans.*, AGU, 78, F827, 1997.
- (Invited) Lassiter, JC** and J Luhr, Os-Isotope Variations in Primitive Lavas from the Western Mexican Volcanic Belt: Evidence for Os Transport into the Mantle Wedge During Subduction, *Eos Trans.*, AGU, 78, F840, 1997.
- Hauri, EH, **JC Lassiter**, HG Barszczus, Lithosphere Controls on the Compositions of Austral Island Lavas: Isotopic Evidence from Raivavae and the Southern Australs, *Eos Trans.*, AGU, 78, F828, 1997.
- Lassiter, JC** and EH Hauri, Os-Isotope and Trace Element Variations in Hawaiian Xenoliths: Implications for Melt/Lithosphere Interaction, *Eos Trans.*, AGU, 77, F812, 1996.
- Lassiter, JC** and EH Hauri, Local Crustal Assimilation in Hawaiian Lavas or Ancient Recycled Crust in the Hawaiian Plume? Os-Isotope Constraints for ^{18}O Enriched and Depleted Lavas, Chapman Conf. on Shallow Level Processes in Ocean Island Magmatism: Distinguishing Mantle and Crustal Signatures, 1996.
- Lassiter, JC** and EH Hauri, Os-Isotope Constraints on Hawaiian Plume Composition and Melt/Lithosphere Interaction: Results from Mauna Kea and Koolau Volcanoes, *Eos Trans.*, AGU, 77, S287, 1996.
- Lassiter, JC**, MT Silk, MA Richards, DJ DePaolo, CG Farnetani, RA Duncan, Constraints on the Origin of the Wrangellia Flood Basalt Province: Support for the Plume Impact Model of Flood Basalt Formation, *Eos Trans.*, AGU, 76, 587, 1995.
- Lassiter, JC** and DJ DePaolo, Implications of Geochemical Contrasts Between Continental and Oceanic Flood Basalts, *GSA Abstracts*, 26, 221-222, 1994.
- Lassiter, JC**, DJ DePaolo, MD Kurz, JM Rhodes, FA Frey, Isotopic Evolution of Mauna Kea Volcano: Results From the Hawaii Scientific Drilling Project, *Eos Trans.*, AGU, 75, 708, 1994.
- Kurz, MD**, JC Lassiter, JM Rhodes, FA Frey, Helium Isotopic Evolution of Mauna Kea Volcano: First Results From the 1 Km Drill Core, *Eos Trans.*, AGU, 75, 711, 1994.
- Lassiter, JC** and DJ DePaolo, Lithospheric Assimilation in the Genesis of Continental and Oceanic Flood Basalts, *IAVCEI Abstracts*, 62, 1993.
- (Invited) Lassiter, JC** and DJ DePaolo, Geochemical and Isotopic Features of Oceanic Flood Basalts: A Case Study of the Wrangellia Terrane, *Eos Trans.*, AGU, 73, 533, 1992.
- Jones, DL**, M Richards, JC Lassiter, DJ DePaolo, Events Preceding Eruption of Triassic Wrangellian Flood Basalts, Southern Alaska, *Eos Trans.*, AGU, 73, 532-533, 1992.
- Lassiter, JC** and DJ DePaolo, Isolation of Mantle Plume Isotopic Signatures by Analysis of Temporal Variations in Continental Flood Basalts, *Eos Trans.*, AGU, 72, 579, 1991.

Ruiz, J, G Rattray, E Wendlandt, J Lassiter, Evolution of the Lower Crust: Granulite Facies Xenoliths from Cratons and Rifts, Eos Trans., AGU, 72, 543, 1991.

Invited Departmental Seminars and Keynote Talks (incomplete list) since promotion to Associate Professor

Lassiter, JC, “The blind men and the elephant: An incomplete introduction to mantle geochemistry and what it can tell us about the evolution of our planet”, College of Natural Science Scholars Luncheon, UT Austin, 2017.

Lassiter, JC, “Evidence for and consequences of melting a marble-cake mantle”, DePaolo Symposium, UC Berkeley Earth and Planetary Science Department, 2016.

Lassiter, JC, “The blind men and the elephant: An incomplete introduction to mantle geochemistry and what it can tell us about the evolution of our planet”, Jackson School DeFord Lecture, UT Austin, 2016.

Lassiter, JC, “The Elephants’ graveyard: Constraints from mantle plumes on the fate of subducted slabs and implications for the style of mantle convection”, Planetary Organization of Space Science Exploration (POSSE), UT Austin, 2016.

Lassiter, JC, “Evidence for lithosphere erosion beneath the Rio Grande Rift, and constraints on the composition of the depleted upper mantle”, Steinmann Institute for Mineralogy, Univeritaet Bonn, Bonn, Germany, 2015.

Lassiter, JC, “How I became a geochemist, and what geochemistry (specifically, the Re-Pt-Os isotopic system) can tell us about the late accretion of the Earth”, Schultz Symposium, Department of Earth, Environmental, and Planetary Sciences, Brown University, 2014.

Lassiter, JC, “Evidence for lithosphere erosion beneath the Rio Grande Rift, and constraints on the composition of the depleted upper mantle”, Dept. Earth and Ocean Sciences, University of South Carolina, 2014.

Lassiter, JC, Byerly, B, (Keynote) “Geochemical Investigation of Mantle Xenoliths from the Central Rio Grande Rift and Colorado Plateau Margin, New Mexico, USA: Constraints on Lithosphere Delamination Associated with Continental Rifting”, 2010 Deutsche Mineralogische Gesellschaft Annual Meeting, Münster, Germany, 2010.

Lassiter, JC, “The Elephants’ graveyard: Constraints from mantle plumes on the fate of subducted slabs and implications for the style of mantle convection”, Steinmann Institute for Mineralogy, Univeritaet Bonn, Bonn, Germany, 2009.

Lassiter, JC, “Constraints on the chemical and physical evolution of the mantle beneath the Colorado Plateau and the Rio Grande Rift”, Dept. Geological Sciences, University of Texas at El Paso, 2009.

Lassiter, JC, “Radiogenic heat production and the thermal history of the Earth”, Department of Physics, University of Texas at Austin, 2009.

Lassiter, JC, “The Elephants’ graveyard: Constraints from mantle plumes on the fate of subducted slabs and implications for the style of mantle convection”, Department of Earth Science, Rice University, 2008.

Lassiter, JC, “The Elephants’ graveyard: Constraints from mantle plumes on the fate of subducted slabs and implications for the style of mantle convection”, Department of Earth and Atmospheric Sciences, University of Houston, 2007.

Lassiter, JC, “Is Mantle Convection Layered? If so, at what depth?” Max-Planck Institut f. Chemie, Mainz, Germany, 2007.

Lassiter, JC, (Keynote) “Earth’s energy equation, simplified”, Deep Ocean Antineutrino Observatory Workshop (DOANOW), 2007.