

CURRICULUM VITAE

John C Lassiter

Associate Professor, Univ. Texas at Austin

Dept. Geological Sciences
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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

2008-present	Associate Professor, Dept. of Geological Sciences, University of Texas at Austin, Austin, TX
2004-2008	Assistant Professor, Dept. of Geological Sciences, University of Texas at Austin, Austin, TX
1999-2004	Staff Scientist, Max-Planck-Institut für Chemie, Mainz, Germany

Professional Societies

Member, American Geophysical Union
Member, Geochemical Society

Department Service

Member, Petrology Search Committee (2013, 2014)
Member, ICP-MS Lab Manager Search Committee (2012)
Member, JSC 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-present)
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 (2004-present)
Member, Research Scientist Support Restructure Committee (2005)

Organized and administered Technical Sessions (2005-2006)

Community Service

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
Frequent reviewer for *EPSL*, *Geochim. Cosmochim. Acta*, *Science*, *Nature*, *Chem. Geol.*, G^3 , and other journals)
Associate editor, *Reviews of Geophysics*, 2002-2004

Awards and Fellowships

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

Gabrielle Ramirez (UT-Austin; undergraduate honors student; 09/13-present; co-supervisor J. Barnes
Edward Marshal (UT Austin PhD student; 09/12-present)
Ruohan Gao (UT Austin PhD student; 09/10-present)
Rudra Chatterjee (UT Austin PhD student; 09/09-present)
Benjaman Byerly (UT Austin PhD completed Spring 2013)
Fatma Geneli (visiting PhD student; METU, Turkey, 9/9-9/10)
Lindsay Szramek (UT-Austin; PhD completed Summer 2010; co-supervisor J. Gardner)
Julie Mitchel (UT-Austin; undergraduate honors student; 05/07-05/08)
Michael Rowe (Postdoctoral researcher, UT-Austin, 08/2006-08/2007)
Marie Jamais (Max-Planck Institut, PhD completed 02/2007)
Kai Rankenburg (Max-Planck Institut, PhD completed 11/2003)

Graduate Student Committees

Ruohan Gao (Dissertation Committee; advisor)
Rudra Chatterjee (Dissertation Committee; advisor)
Benjaman Byerly (Dissertation Committee; advisor)
Lindsay Szramek (Dissertation Committee; co-advisor)
Benjamin Andrews (Dissertation Committee)
Giovanni Sosa (Dissertation Committee)

Jeff Lin (Dissertation Committee)
Jake Jordan (Dissertation Committee)
Jeffrey Cullen (Dissertation Committee)
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.

Courses taught at UT Austin to date:

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)
GEO 376C Introduction to the Solar System (Introductory-level Undergraduate)
GEO 391 Meteoritics and Early Solar System Processes (Graduate level)

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 I 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- and Os isotopes. Development of analytical procedures for measurement of Li-isotopes is underway. In addition, I 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 now fully operational and 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. I also share oversight of the departments *Isoprobe* MC-ICP-MS.

External and Internal Research Funding (2004-present)

National Science Foundation Peer-reviewed Funding:

1) 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).

2) Models for the origin of ¹⁸⁶Os/¹⁸⁸Os and ¹⁸⁷Os/¹⁸⁸Os isotope variations in the mantle: Core signal, recycled components, or intra-mantle differentiation. Budget: \$224,084. 7/15/13-6/30/16 (NSF-EAR P&G).

3) 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).

4) Collaborative Research; Constraining the relative importance of fluid fluxes and lithospheric metasomatism on the evolution of the Rio Grande Rift, New Mexico. PI Lassiter. Budget: \$57,980. 7/01/08-06/30/11 (NSF-EAR P&G).

5) 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).

6) Collaborative Research: Continental or Oceanic Provenance of Lena Trough Peridotites. PI Lassiter, co-PI Housh. Budget: \$86,777. 1/1/07-12/31/08 (NSF-OCE).

7) 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).

8) 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).

9) 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: \$1,740,797

Proposals currently under review:

10) The Role of Fluids in the Construction and Destruction of Continental Lithospheric Mantle as Documented by Colorado Plateau Xenoliths. PI Barnes, co-PI Lassiter. Budget: \$352,991 (NSF-EAR P&G pending)

11) 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 (NSF GeoPRISMS pending)

Jackson School of Geosciences Internally-reviewed Funding:

12) 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).

13) 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).

14) 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.

Peer-reviewed Publications (H index = 19 as of 10/13/2014 per Google Scholar)

[N] = # citations per Google Scholar as of 10/13/2014

*** denotes student or post-doc 1st-author paper where Lassiter was primary advisor for publication**

*Geneli, F, C Goncuoglu, **JC Lassiter**, Evidence for melting of metasomatically enriched lithospheric mantle in post-collisional volcanism in the Central Anatolian Crystalline Complex, *Lithos*, in revision (postponed due to 1st author maternity leave).

Rowe, MC, **JC Lassiter**, K Goff, Basalt volatile fluctuations during continental rifting: An example from the Rio Grande Rift. *Geochem. Geophys. Geosys.*, in review.

*Byerly, BL, **JC Lassiter**, Examination of trace elements and hafnium isotopes in spinel peridotite xenoliths: implications for the interpretation of Lu/Hf ages. *Chem. Geol.*, in review.

*Chatterjee, R, **JC Lassiter**, S Loewy, Evaluation of the sources of analytical error and optimization of analytical techniques for high-precision Os-isotope measurement via N-TIMS. *Chem. Geol.*, in review.

Lassiter, JC, BL Byerly, JE Snow, E Hellebrand, Constraints from Os-isotope 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.

*Byerly, BL, **JC Lassiter**, Isotopically ultradepelted domains in the convecting upper mantle: Implications for MORB petrogenesis. *Geology*, 42, 203-206, 2014. [2]

Sosa-Ceballos, G, JE Gardner, **JC Lassiter**, Magma evolution during 23 ky of explosive eruptions at Popocateptl volcano, Mexico: Insights from experimental petrology, Sr-Nd-Pb isotopes, and plagioclase compositional variability, *Contrib. Mineral. Petrol.*, 167, DOI 10.1007/s00410-014-0966-x, 2014.

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. [1]

*Byerly, BL, **JC Lassiter**, Geochemical Evidence for Lithosphere Delamination beneath the Rio Grande Rift: Constraints from mantle xenoliths, *Earth. Planet. Sci., Lett.*, 355-356, 82-93, 2012. [6]

*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. [10]

Chan, L-H (deceased), **JC Lassiter**, EH Hauri, SR Hart, J Blusztajn, Lithium isotope systematics of lavas from the Cook-Austral Islands: origin of HIMU and EM reservoirs in the South Pacific Ocean, *EPSL*, 277, 433-442, 2009. [26]

- 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. [34]
- *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. [17]
- 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. [50]
- 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-related lavas, *Earth Planet. Sci. Lett.*, 250, 306-317, 2006. [19]
- 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 0.1029/2005GC000986, 2005. [65]
- *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 Plateau, *J. Petrol.*, 46, 169-190, 2005. [37]
- Lassiter, JC**, The 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. [40]
- *Rankenburg, K, **JC Lassiter**, G Brey, Constraints on Crustal Contamination in Cameroon Volcanic Line Lavas from Isotopic Study of Cognate, Mantle-Derived Megacrysts, *Contrib. Mineral. Petrol.*, 147, 129-144, 2004. [17]
- Lassiter, JC**, J Blichert-Toft, EH Hauri, HG Barseczus, 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. [59]
- 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. [54]
- 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. [62]
- Lassiter, JC**, EH Hauri, IK Nikogosian, HG Barseczus, 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. [57]

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. [52]

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. [106]

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. [277]

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. [162]

Lassiter, JC, DJ DePaolo, and M Tatsumoto, Isotopic Evolution of Mauna Kea Volcano: Results from a 1 Kilometer Drill Core at Hilo Bay, Hawaii, *J. Geophys. Res.*, 101, 11769-11780, 1996. [127]

Hauri, EH, **JC Lassiter**, and DJ DePaolo, Osmium Isotope Systematics of Drilled Lavas from Mauna Loa, Hawaii, *J. Geophys. Res.*, 101, 11793-11806, 1996. [174]

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. [114]

Lassiter, JC, DJ DePaolo, and JJ Mahoney, Origin of the Wrangellia Flood Basalts and Implications for Continental and Oceanic Flood Basalt Genesis, *J. Petrol.*, 36, 983-1009, 1995. [84]

Editorials and other non-peer reviewed publications

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

Abstracts Presented at Professional Conferences and Workshops

(note: presenting author shown in bold type)

***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, $^{186}\text{Os}/^{188}\text{Os}$ 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.
- 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.
- 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.

- ***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.
- ***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.

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