
Cin-Ty A. Lee

Department of Earth, Environmental and Planetary Sciences
MS-126
6100 Main St.
Rice University
Houston, TX 77005

Email: ctlee@rice.edu or cintylee@gmail.com

Websites: www.cintylee.org

Phone: (713) 348-5084

Born: 1974

Nationality: U.S. citizen

Academic History

6/11 - Rice University (Full Professor)
6/08 - 5/11 Rice University (Associate Professor)
5/02 - 5/08 Rice University (Assistant Professor)
2/01 – 2/02 California Institute of Technology (post-doctoral Fellow)
post-doctoral advisor Gerald J. Wasserburg
9/96 – 3/01 Harvard University (Ph.D. - geochemistry)
doctoral advisor Roberta L. Rudnick
9/92 – 6/96 University of California, Berkeley (B.A.- geology)
undergraduate advisor George H. Brimhall, Jr.

Other academic experience

2012 [Miller visiting professor](#) at UC Berkeley
2011 Visiting professor at the School of Ocean and Environmental Sciences, University of Tokyo
2002 Visiting professor at Academia Sinica, Taiwan

Employment History

2016 to present – Chair of the Department of Earth Science
2015-2016 – Associate Chair, Dept Earth Science
2002 to present – Professor at Rice University
2001-2002 – postdoctoral fellow, California Institute of Technology
1995 – Research assistant at the Pacific Southwest Research Station, Riverside, CA –
geomorphologic impacts of fire (mentor Pete Wohlgenuth)
1995 grader: Geochemistry 131 “Theoretical geochemistry” (UC Berkeley, Prof. Harold Helgeson)
1994 lab assistant: thin section and sample preparation (UC Berkeley, Prof. Ian S. Carmichael)
1994 grader: Geology 10 “Planetary Geology” (UC Berkeley, Prof. Raymond Jeanloz)
1993 research assistant (geomorphology): United States Dept. Agriculture Pacific Southwest Research Station (supervisor, Peter Wohlgenuth)
1991 – research assistant at the United States Salinity Laboratory, Riverside, CA (mentor Donald Suarez)

1991 research assistant: United States Salinity Laboratory, Riverside, CA (supervisor, Dr. Suarez)

Leadership positions

2016 - Chair of the Department of Earth, Environmental and Planetary Sciences, Rice University
2016 – Director of Industry-Rice Earth Science Symposia (IRESS)
2016-2017 – Co-chair of joint strategic plan for Schools of Engineering and Natural Science, Rice University
2015-2016 – Vice Chair for department of Earth Science
2015-2016 – Project leader for Habitat Restoration proposal for Hogg Bird Sanctuary, Memorial Park, Houston
2015-2017 – Secretary of the Volcanology, Geochemistry, and Petrology (VGP) section of the American Geophysical Union
2013-2019 – Project Leader of NSF Arc2climate multi-institutional research group (\$4.3M)
2013-2014 – Chair of the Kuno Award Committee – VGP section (American Geophysical Union)
2013 Lead organizer of the summer school at UC Berkeley (Cooperative Institute of Deep Earth Interior - CIDER)

Advisory Boards

2017 – Institute of Earth Sciences, Academia Sinica, Taiwan

Awards, Scholarships, and Honorary Lectureships

2018 American Geophysical Union Fellow	(http://www.geosociety.org/awards/aboutAwards.htm#donath)
2018 Smith Lecture, U Michigan	
2018 U Wyoming Distinguished Lecture Series	2009 Clarke Medal – Geochemical Society
2017 Guggenheim Fellow	(http://www.geochemsoc.org/awards/fwclarkeaward.htm)
2016 Mineralogical Society of America Distinguished Lecturer	2008 Kuno Award – American Geophysical Union – Volcanology, Geochemistry, Petrology
2014 Mineralogical Society of America Fellow	(http://vgp.agu.org/kuno_award.html)
2013 Shen-Su Sun Lecturer, Chinese Geochemistry Society	2005 David and Lucile Packard Fellow
2012 Agassiz Lecturer, Harvard University	(www.packard.org)
2012 Miller Visiting Professor, UC Berkeley	2005 Great Texas Birding Classic – 2 nd place team UTC section
2011 Mutch Lecturer, Brown University	2004 Great Texas Birding Classic – 1 st place team UTC section (214 species in 24 hours)
2010 Geological Society of America Fellow	
2009 Donath Medal – Geological Society of America	

Miscellaneous awards prior to PhD.

Mineralogical Society of America Grant for Research – 2000	Geological Society of America Outstanding Senior Award – 1995
Derek Bok Distinguished Teaching Award (Harvard University) 1999	Association for Rewards to College Scientists (ARCS) Scholarship – 1995
National Science Foundation Graduate Fellowship – 1996-1999	Cross Scholarship
Departmental Citation (University of California, Berkeley) -1995	National Merit Finalist – 1992
University of California, Berkeley Alumni Leadership Scholarship – 1992 and 1995	California State Science Fair, Zoology Category: “How does avian diversity relate to the physiognomy of an urban habitat in southern California during winter?” - 1991

Research statement

I investigate the physical and chemical processes of planetary differentiation, with particular emphasis on the origin and evolution of the Earth's crust and mantle and how the Earth's interior interacts with the oceans and atmosphere to lead to a habitable planet. I use geochemistry, phase petrology, field geology, and geodynamics as my tools.

Leadership statement as Departmental Chair

Departmental vision

- Strategic planning – developed a 10 year strategic plan for the department
- Department name – initiated and successfully led a department name change
- External Advisory Reports – prepared departmental executive summary for external advisory board

Administrative

- Staff management – managed and restructured an administrative staff of 9, re-established a positive culture among the staff, identified redundant positions and identified new staff needs

Communication and outreach

- Public communication – started a departmental magazine, hired a science writer/coordinator, started a dynamic departmental website open to all members of the department community, developed an avenue for students to publish articles in the magazine for general public

Community relationships

- Lead natural history field trips for Houston community, university alumni travel program

Academic - education

- Course curricula – responsible for accreditation reporting
- Professional Masters Program – helped start the Data Science professional masters concentration under the Subsurface Geoscience program; developing strategic plan
- Continuing Education – developed and taught new Earth Science course with Rice's Glasscock School of Continuing Studies
- Senior honor's thesis – co-established the undergraduate senior honor's thesis program in the department

Academic – research

- Faculty hiring – responsible for recruiting and hiring new faculty

Fundraising

- Alumni activities – established departmental alumni travel program with Rice Traveling Owls
- Corporate relations – cultivating contacts with major corporations to fund department-led workshops (BHP, Anadarko, ExxonMobil, etc.)
- Departmental advisory board – established a departmental advisory board
- Private fundraising – worked with numerous donors to build gifts (\$2 M since 2017)
- Federal fundraising – led efforts to secure large multi-institutional research grants
- Advertising revenue – developed avenue for advertising in departmental magazine

Industry relations

- Director of Industry-Rice Earth Science Symposia
- Establishing collaborations with industry (Shell, Chevron, Anadarko)

Laboratory infrastructure

- Laboratory renovation – oversaw space allocation and renovation for laboratories; responsible for coordinating six laboratory renovations (wet lab, instrumentation rooms, audio-visual rooms)
- Establishing staff positions for technical laboratory support

Teaching and education statement

I teach a variety of introductory and advanced level courses in the Earth and Environmental Sciences, focusing on the chemistry and physics of the Earth. I am also deeply involved as a mentor in undergraduate research. I incorporate field trips and laboratories in my courses.

ESCI 101 – The Earth

ESCI 502 – Advanced Field Geology

ESCI 3210 – Earth Systems

ESCI 322 – Earth Chemistry and Materials

ESCI 410 – Optical Mineralogy/Petrography

ESCI 412 – Advanced Petrology

ESCI 416 – Economic Geology of Mineral Resources

ESCI 430 – Isotope and trace-element geochemistry

ESCI 334 – Geological and Geophysical Techniques
– field geology

ESCI 414 - Introduction to the physics and chemistry
of the atmosphere

ESCI 434 – Introduction to mass spectrometry

ESCI 562 – Advanced topics in Geophysics

ESCI 518 – Dimensional Analysis in the Earth
sciences and beyond

ESCI 413 – Introduction to the dynamics and
physical properties of the Earth

BIOS 337/237 – Field Bird Biology Laboratory (Dept
of Ecology and Evolutionary Biology)

Other courses: Physics and chemistry of the Earth,
Introductory geodynamics, General Geology,
Ore geology

Funding summary

Total accumulated grants since 2003: \$8,941,772

Active Grants

2018-2021 NSF EAR – 1753599 - Trace Element Crystal Growth Speedometry: Implications for Magmatic and Hydrothermal Systems, Lead PI, \$348,482.

2016-2017 NSF MRI: Acquisition of Time-of-Flight Secondary Ion Mass Spectrometer (TOF-SIMS) for high resolution 3-D materials analysis. P.I.: R. Verduzco. Co-Is: C.-T. Lee, [C.A. Masiello](#), J. Lou. \$1,666,069.

2013-2019 NSF OCE-1338842: FESD Type 1 Proposal: Continent-island Arc Fluctuations: Linking deep Earth Dynamics to Long-term Climate, \$4,300,000. Lead PI

Previous grants

2014-2017 NSF EAR – 1347085 – The deep sulfur cycle in subduction zones and arc magmas, 379,666\$, Lead PI.

2011-2014 NSF-EAR 1119315– The deep lithosphere filter and the growth of continental arcs, \$339,084, Lead PI

2009-2010 NSF-EAR 0918577 - Quantifying the role of chemical weathering on the composition of the continental crust using Mg isotopes and other tracers, 100,000\$, Lead PI

2008-2011 NSF- EAR 0745540 EARTHSCOPE: Collaborative Research: Mantle Dynamics and Magmatism Across the Basin and Range, co-PI with Don Forsyth (Brown U; lead university) and Terry Plank (Lamont-Doherty Earth Observatory); \$90,000, co-PI

2007-2010 NSF- EAR 0365338 “Collaborative Research: Field and Modeling-Based Tests of the Role of Water in Nominally Anhydrous Minerals in controlling the Strength/Stability of Continental Lithospheric Mantle” 01/01/07 – 12/31/09; \$190,000; Lead PI

2005-2010 Packard Foundation Fellowship, 2005-2010; \$725,000; Lead PI

Cin-Ty Lee

- 2004-2008 NSF 0409423 Collaborative Research: On the Origins of Primitive Magmas in the Cascade Volcanic Arc, \$193,477.00; co-PI with Leeman
- 2006-2007 NSF EAR – 0549268 Acquisition of laser ablation system to quantify matrix and grain boundary trace element partitioning in olivine and pyroxenes: an integrated bulk and in situ approach, \$115,100; Lead PI
- 2005-2007 NSF EAR-0440033 “Resolving the paradox of fO₂ in arcs” (\$180,000), Lead PI with Leeman
- 2004-2006 NSF-EAR-0352803 “Meeting of Young Researchers in the Earth Sciences MYRES: A Conference Series and Community Development Initiative” (\$63,180), Lead PI
- 2002-2006 NSF-EAR-0309121 “Thermodynamic, petrologic, geochemical and isotopic constraints on metal mobility during hydrothermal serpentinization of ultramafics” (\$214,023), Lead PI
- 2003-2004 NSF-EAR-0236761 “Upgrade of JEOL JSM-840 Scanning microscope” (\$37,690); co-PI with A Lutgge

Honor Societies

Golden Key National Honor Society
Phi Beta Kappa
Sigma Xi

Professional Societies

Geochemical Society
Mineralogical Society of America
American Geophysical Union
Geological Society of America
Houston Geological Society

Editorial positions

Editor – Geochemical Perspectives Letter, 2018 to present
Associate Editor – Science Advances, 2016 to present
Associate Editor – American Journal of Science, 2016 to present
Editorial Advisory Board for Earth and Planetary Science Letters (2009-present)
Editorial Advisory Board for Solid Earth Sciences (2015-present)
Editor – Geochemistry, Geophysics, Geosystems –2013-2017
Associate Editor – Journal of Geophysical Research (2011-2013)

Professional Service

2017 – Mineralogical Society of America Award Selection Committee
2017 – NSF EAR Integrated Earth Systems review panel
2017 – 2020 Advisory Board for Institute of Earth Sciences, Academia Sinica, Taiwan
2017 – Chair of Industry-Rice Earth Science Symposium
2016 – Chair of the organizing committee for Industry-Rice Earth Science Symposia
2015 – Project leader for Habitat Restoration of I. M. A. Hogg Bird Sanctuary
2015 – Houston Memorial Park Eco-tech conservation committee
2015-2017 – Secretary of the Volcanology, Geochemistry, and Petrology (VGP) section of the American Geophysical Union
2014 – Panel member on Schmidt Oceanographic Institution proposals
2014 – Member of Technical Ecology Advisory Panel on Master Planning team for the Memorial Park Conservancy Conservation, Houston, TX
2014 – co-organizer of NASA-NSF-Smithsonian workshop on “Beyond Habitability: life and early Earth”

- 2013-2014 – Chair of the Kuno Award Committee – VGP section (American Geophysical Union)
- 2013 Lead organizer of the summer school at UC Berkeley (Cooperative Institute of Deep Earth Interior - CIDER)
- 2012 – AGU Kuno awards committee
- 2011 – Student mentor for Empowering Leadership Alliance of Rice University (under-represented minorities and women)
- 2011 – NSF Panel member Continental Dynamics
- 2011 – CIDER (Cooperative Institute for Deep Earth Research) – steering and planning committee
- 2011-2013 American Geophysical Union Kuno Awards committee
- 2011 – Goldschmidt 2011, Thematic session leader
- 2011 – NSF Panel member Continental Dynamics
- 2010 – NSF Panel member Continental Dynamics (EAR) and Geoprisms (OCE)
- 2010 – Program Planner; US National Academy of Sciences joint meeting with Japan Society for the Promotion of Science
- 2010 CIDER (Cooperative Institute for Deep Earth Research) – steering committee
- 2009- NSF Panel member (EAR) Continental Dynamics
- 2009- Program Planner for Kavli Frontiers of Science Meetings – US National Academy of Science
- 2008 CIDER (Cooperative Institute for Deep Earth Research) – member of steering committee
- 2006 Earthscope workshop participant
- 2006 Instructor at CIDER Workshop at UC Santa Barbara
- 2005 NASA – Geology and Geophysics Panelist
- 2004 Steering Committee Member for first MYRES “Meeting of Young Researchers in the Earth Sciences” – La Jolla, CA

Departmental and University Service

- 2017 – Committee member for search for the Dean of the Glasscock School of Continuing Studies
- 2016 – Co-chair of Rice University’s Science and Engineering Vision Committee
- 2016 to present - Chair of the Department of Earth Sciences
- 2016 – Laboratory Safety Committee
- 2015 – Chair of Departmental Strategic Plan
- 2015 – Departmental Webpage Chair
- 2015 – Associate Chair of Earth Science Dept, Rice University
- 2014 – Chair of 1 tenure case in Earth Science Dept, Rice University
- 2014 -2015 – Chair of strategic plan
- 2014 – Chair of Graduate Admissions Committee
- 2014 – Committee member for the search of the Dean of Natural Sciences
- 2013 – Chair of the Faculty Search Committee
- 2013 – Chair of the Graduate Admissions Committee
- 2012 – Committee for preparing review of Deans, Rice University
- 2012 – Chair of 1 tenure case in Earth Science Department, Rice University
- 2011 – Chair of 2 tenure cases in Earth Science Department, Rice University
- 2003 – Undergraduate scholarships and fellowships committee at Rice University

Other activities

- Co-founded Greenpitta.com (vice-president and creative officer for logo and design)
- Developed a new crowd-based, crowd-maintained departmental webpage www.earthscience.rice.edu/
- Founder and Editor of Outcroppings – Rice University journal for the Earth, Energy and Environment (www.earthscience.rice.edu/outcroppings)
- Alumni and Donor relations – lead alumni travel programs; established a donor network for the Earth Science department at Rice University
- Leading birdwatching tours for nature and conservation organizations

Students, post-docts supervised or advised

Current

Eytan Sharton-Bierig (PhD)
Patrick Phelps (PhD)
Hehe Jiang (PhD)
Julin Zhang (PhD)
Jackson Stiles (BS)
Ming Tang (post-doctorate)

Past Members

PhD (primary advisor)

Michael Farner (PhD 2017) – high school teacher, YES Prep, Houston, TX
Monica Erdman (PhD 2016) – United States Geological Survey, Map Editor
Emily Chin (PhD 2014) – assistant professor at UC San Diego, Scripps
Zheng-xue Li (PhD 2007) – Conoco-Phillips, geophysicist
Mark G. Little (PhD 2007) – executive director of Kenan Institute of Private Enterprise at University of North Carolina Chapel Hill.

MSc. (primary advisor)

Alexandra Malouta (MS 2016)
Kelley Liao (BS 2010, MS 2012) – Schlumberger
Nigel Watt (MS 2011) – information management consultant at CH2M
Heather Dalton (MS, 2009) – education specialist, Lunar & Planetary Institute
Amy Maloy (MS 2007)
Min Hu (MS 2007) – Microsoft engineer
H. Patrick Young (BS 2007, MS 2009) – PhD Yale, now analyst at Prometheus Research

BSc. (advisor)

Matthew Neal
Sarah Gerenday (2017 BS) – PhD candidate at UC Santa Barbara
Graham Eldridge (2016 BS)
Emily Paine (2016 BS) – National Institute of Standards
Elli Ronay (2016 BS) – Vanderbilt PhD candidate, NSF graduate research fellow
Yunong Xu (2016 BS)
Chi-Tang (Zoe) Wu (BS), MS candidate at UC Davis
Larisa LaMere (2016, BS), MS candidate at Oregon State University
Mark Mikus (BS) – MS candidate Colorado School of Mines

Blake Dyer (BS 2010) –PhD, Princeton University, post-doctorate Columbia
Artemis Harbert (BS 2008) – engineering specialist Railroad Commission of Texas
Michael Kallstrom (BSc 2008) - MS UT Austin, retail manager at Nature’s Treasures
Stephen Turner (BS 2007) – PhD, Harvard University
Ulyana Horodyskyj (BS 2007) – PhD, University of Colorado; Lecturer at Colorado College
Katelyn Gray (BSc) –PhD candidate at Yale University
Janelle Homburg (BS 2006) - PhD Columbia University, ExxonMobil
Nivedita Thiagarajan (BS 2005) – PhD Caltech, post-doctorate at Caltech
Jessica Hawthorne (BS 2007) - PhD Princeton, Academic Research Fellow at Leeds U, UK
Martin Collier (BS 2004) – PhD Columbia University, ExxonMobil
Shayda Naficy (BS) – director International Water Campaign

High school students

Daphne Jin, Analyst at Broadhaven Capital Partners

Postdoctorates

Cailey Condit – assistant professor at University of Washington
Xu Chu - assistant professor at University of Toronto
Julia Ribeiro – professor China University of Geosciences
Wenrong Cao – assistant professor at University of Nevada, Reno
Peter Luffi – Romanian Geological Survey
Tobias Höink – product manager at Baker Hughes
Bing Shen – professor at Beijing University
Da-Ren Wen
Sune Nielsen - associate professor Woods Hole Oceanographic Institute
Veronique Le Roux - assistant professor, Woods Hole Oceanographic Institute
Arnaud Agranier – professor at Universite de Bretagne Occidentale, France
Maik Pertermann – faculty at San Jacinto College, Houston, TX
Yongsheng Liu - Vice President, China University of Geosciences, Wuhan

Visiting students

Catherine Ross (visiting from McGill)
Xin Chen (visiting PhD student from Nanjing University)
Xun Yu (visiting PhD student from Nanjing University)
Anna van Brummen (visiting undergrad from Princeton University)
Masaru Oka (visiting from Stanford) technical services at OpTime, EPIC
Fernando Nasciementos Santos (visiting undergrad from Brazil)
Detao He (visiting PhD student from China University of Geosciences, Wuhan)
Xu-Jie Shu (Nanjing University, China)

Visiting Scientists

Lin Dong (professor Beijing National University, China)
Qingguo Zhai (Beijing Geological Survey)
Jianping Zheng (China University of Geosciences, Wuhan)
Claudia Sayao-Valladares (Rio de Janeiro State University, Brasil)

Analytical experience

Clean laboratory experience; quadrupole and magnetic-sector ICP-MS, multiple collector magnetic-sector icp-ms (MC-ICP-MS), laser ablation, thermal ionization mass spectrometry (including negative ions), electron microprobe, fourier transform infrared-spectroscopy.

Field mapping experience

1. Poleta Folds, White Mountains, California: 3 weeks of mapping as an undergraduate.
2. Berkeley Hills, California: 1 semester of mapping as an undergraduate
3. Sierran foothills: 3 weeks of magnetometer surveys of Eocene paleo-river channels (undergraduate)
4. Sun city complex in the Peninsular Ranges, CA: mapping for fun
5. Mariscal fold, Big Bend National Park, TX: mapping each spring since 2003 as an instructor.
6. Feather River Ophiolite, CA – mapping for an NSF-funded project.
7. Peninsular Ranges Batholith, CA
8. Cretaceous stratigraphy in west Texas
9. Magma mixing in the Perris pluton, California
10. Skarns in the eastern Peninsular Ranges Batholith
11. Santa Rosa Mylonite, California

Field trips (leader)

1. Southern California and Owens Valley – annual field trip for Rice undergraduates; sole leader
2. New Mexico, Rio Grande Rift – field trip for Rice undergraduates
3. Big Bend National Park – Mariscal Mountain – Field Geology at Rice University
4. Geology of Big Cottonwood Canyon, Wasatch Mtns, Utah; Packard fellows meeting
5. Transect across California from Coast Ranges, Sierra Nevada foothills, Sierra Nevada batholiths, Long Valley, Owens Valley, Death Valley
6. Geology of northern Utah, western Wyoming, and southeastern Idaho
7. Geology of the Llano uplift, Texas
8. Geology in the Yerington porphyry copper deposit, Nevada
9. Cretaceous Interior Seaway, west Texas
10. Geology of Bernasconi Hills pluton, California
11. Geology of the Santa Rosa Mylonite, California
12. Northern Arizona geology
13. Southeastern California and Metamorphic Core Complexes
14. Natural history of the Galapagos Islands
15. Natural history of Hudson Bay, Canada
16. Natural History of the Serengeti, Tanzania

Peer-reviewed publications in the Earth sciences

* denotes that primary research was done in our group

papers can be downloaded here: <http://www.cintylee.org>

citation rates: google.scholar

total citations: 7200

H-index: 45

2018

Submitted

Zhang, J., Lee, C.-T. A., Constraints on crystal growth kinetics from a case study of orbicular granitoids.

Submitted to American Mineralogist.

Hayles, J. A., Homann, M., Banerjee, A., Jiang, H., Shen, B., Lee, C.-T., Yeung, L., Triple-isotope evidence for three-billion-year secular evolution of oxygen isotopes in seawater, submitted.

PUBLISHED, IN PRESS OR ACCEPTED PENDING REVISION (PEER-REVIEWED ONLY)

2018

143. **Lee, C.-T. A.**, Jiang, H., Dasgupta, R., Torres, M., A framework for understanding whole Earth carbon cycling. Cambridge University Press.

142. *Erdman, M. E., **Lee, C.-T. A.**, Continental arc evolution via fractionation of garnet pyroxenite: The deep crustal perspective from central Arizona, USA, in revision for American Journal of Science

141. *Chu, X., **Lee, C.-T. A.**, Dasgupta, R., Cao, W., The contribution to exogenic CO₂ by skarnification: a numerical estimate, in revision for American Journal of Science

140. Morton, D., Sheppard, J., Miller, F., Lee, C.-T., Petrogenesis of the cogenetic Stewart pegmatite-aplite, Pala, California: regional implications, in revision for Lithosphere.

139. **Lee, C.-T. A.**, Erdman, M., Yang, W., Ingram, L., Chin, E. J., DePaolo, D. J., 2018, Sulfur isotopic compositions of deep arc cumulates, Earth and Planetary Science Letters 500:76-85.

138. *Jiang, H., **Lee, C.-T. A.**, 2018, Trace elements and U-Pb ages in petrified wood as indicators of paleo-hydrologic events, Chemical Geology, <https://doi.org/10.1016/j.chemgeo.2018.06.002>.

137. *Tang, M., Erdman, M., Eldridge, G., **Lee, C.-T. A.**, 2018, The redox “filter” beneath magmatic orogens and the formation of continental crust, Science Advances 4, 10.1126/sciadv.aar4444.

136. **Lee, C.-T. A.**, Jiang, H., Ronay, E., Minisini, D., Stiles, J., Neal, M., 2018, Volcanic ash as a driver of enhanced organic carbon burial in the Cretaceous, Scientific Reports 8:4197; doi:10.1038/s41598-018-22576-3

2017

135. Righter, K., Pando, K., Marin, N., Ross, D., Righter, M., Danielson, L., Lapen, T., **Lee, C.-T.**, 2017, Volatile element signatures in the mantles of Earth, Moon, and Mars: core formation fingerprints from Bi, Cd, In, and Sn, Meteoritics and Planetary Science, in press.

134. *Ribeiro, J. M., **Lee, C.-T. A.**, 2017, An imbalance in the deep water cycle at subduction zones: the potential importance of the fore-arc mantle, Earth and Planetary Science Letters 479:298-309.

133. *Farner, M. J., **Lee, C.-T. A.**, Mikus, M. L., 2017, Mafic-felsic magma interaction: a case study of mafic enclaves from the Bernasconi Hills pluton, Peninsular Ranges, California, Geological Society of American Bulletin, <https://doi.org/10.1130/B31760.1>

132. * **Lee, C.-T. A.**, Caves, J., Jiang, H., Cao, W., Lenardic, A., McKenzie, N. R., Shorttle, O., Yin, Q.-Z., Dyer, B., 2017, Deep mantle roots and continental emergence: implications for whole-Earth elemental cycling, long-term climate, and the Cambrian explosion, International Geology Review <http://dx.doi.org/10.1080/00206814.2017.1340853>.

131. Urann, B. M., Le Roux, V., Hammond, K., Marschall, H. R., **Lee, C.-T. A.**, Monteleone, B. D., 2017, Fluorine and chlorine in mantle minerals and the halogen budget of the Earth’s mantle, Contributions to Mineralogy and Petrology 172:51, DOI:10.1007/s00410-017-1368-7.

130. Chen, M., Niu, F., Tromp, J., Lenardic, A., **Lee, C.-T.**, Cao, W., Ribeiro, J., 2017, Lithospheric foundering and underthrusting imaged beneath Tibet, Nature Communications, DOI:10.1038/ncomms15659.

129. *Farner, M., **Lee, C.-T. A.**, 2017, Effects of crustal thickness on magmatic differentiation in subduction zone volcanism: a global study, *Earth and Planetary Science Letters* 470:96-107, doi.org/10.1016/j.epsl.2017.04.025
128. *Jiang, H., **Lee, C.-T. A.**, 2017, Coupled magmatism-erosion in continental arcs: reconstructing the history of the Cretaceous Peninsular Ranges batholith, southern California through detrital hornblende barometry in forearc sediments, *Earth and Planetary Science Letters* 472:69-81, <http://dx.doi.org/10.1016/j.epsl.2017.05.009>
127. *Cao, W., **Lee, C.-T. A.**, Lackey, J. S., 2017, Episodic nature of continental arc activity since 750 Ma: a global compilation, *Earth and Planetary Science Letters* 461:85-95, <http://dx.doi.org/10.1016/j.epsl.2016.12.044>.

2016

126. Hirase, S., Yokoyama, Y., **Lee, C.-T.**, Iwasaki, W., 2016, The Pliocene-Pleistocene transition had dual effects on North American migratory bird speciation, *Palaeogeography, Paleoclimatology, Palaeoecology* 462:85-91; <http://dx.doi.org/10.1016/j.palaeo.2016.09.006>.
125. Blichert-Toft, J., Delile, H., **Lee, C.-T.**, Stos-Gale, Z., Billström, K., Andersen, T., Hannu, H., Albarede, F., 2016, Large-scale tectonic cycles and the Pb isotope provinces of Europe, *Geochemistry, Geophysics, Geosystems* 17, doi:10.1002/2016GC006524.
124. **Lee, C.-T. A.**, 2016, Geochemical classification of the elements. In *Encyclopedia of Geochemistry*, DOI: 10.1007/978-3-319-39193-9_255-1.
123. *Yu, X., **Lee, C.-T. A.**, 2016, Critical porosity of melt segregation during crustal melting: constraints from zonation of peritectic garnets in a dacite volcano, *Earth and Planetary Science Letters* 449: 127-134.
122. Righter, K., Danielson, L. R., Pando, K. M., Shofner, G. A., Sutton, S. R., Newville, M., **Lee, C.-T.**, 2016, Valence and metal/silicate partitioning of Mo: implications for conditions of Earth accretion and core formation, *Earth and Planetary Science Letters* 437: 89-100.
121. **Lee, C.-T. A.**, Yeung, L. Y., McKenzie, N. R., Yokoyama, Y., Ozaki, K., Lenardic, A., 2016. Two-step rise of atmospheric oxygen linked to growth of continents, *Nature Geoscience* doi:10.1038/NGEO2707.
120. McKenzie, N. R., Horton, B. K., Loomis, S. E., Stockli, D. F., Planavsky, N., **Lee, C.-T. A.**, 2016, Continental arc volcanism as the principle driver of icehouse–greenhouse variability, *Science* 352:444-447.
119. *Erdman, M. E., **Lee, C.-T. A.**, Levander, A., Jiang, H., 2016, Rise of arc magmatism and lower crustal foundering in controlling elevation history of the Nevadaplano and Colorado Plateau: a case study of pyroxenitic lower crust from central Arizona, USA, *Earth and Planetary Science Letters* 439:48-57.

2015

118. *Jiang, H., **Lee, C.-T. A.**, Morgan, J. K., Ross, C. H., 2015, Geochemistry and thermodynamics of an earthquake: a case study of pseudotachylites within mylonitic granitoid, *Earth and Planetary Science Letters* 430:235-248.
117. **Lee, C.-T. A.**, N. R. McKenzie, 2015, Rise of the continents, *Nature Geoscience* 8:506-507, DOI: 10.1038/NGEO2466.
116. *Yu, X., **Lee, C.-T. A.**, Chen, L.-H., Zeng, G., 2015, Magmatic recharge in continental flood basalts: insights from the Chifeng igneous province, *Geochemistry, Geophysics, Geosystems*, DOI: 10.1002/2015GC005805.
115. **Lee, C.-T. A.**, Thurner, S., Paterson, S., Cao, W., 2015, The rise and fall of continental arcs: interplays between magmatism, uplift, weathering, and climate, *Earth and Planetary Science Letters*, doi: 10.1016/j.epsl.2015.05.045.

114. Lee, C-T A and Anderson, D., 2015, Continental crust formation at arcs, the arclogite “delamination” cycle, and one origin for fertile melting anomalies in the mantle, *Science Bulletin* DOI:10.1007/s11434-015-0828-6
113. *Shu, X-J., Lee, C.-T. A., 2015, Sulfur and major element determination by laser ablation high resolution magnetic sector ICP-MS applied to glasses, aphyric lavas, and micro-laminated sediments, *Chinese Journal of Geochemistry*, DOI 10.1007/s11631-015-0051-9.
112. *Chin, E. J., Lee, C-T A, Blichert-Toft, J., 2015, Geochronologic constraints on the thermal evolution of the deep lithosphere beneath continental arcs, *Geochemical Perspectives Letters* 1:20-32; doi:10.7185/geochemlet.1503.
111. Lee, C-T A, Morton, D. M., Farner, M. J., Moitra, P., 2015, Field and model constraints on silicic melt segregation by compaction/hindered settling: The role of water and its effect on latent heat release, *American Mineralogist*; <http://dx.doi.org/10.2138/am-2015-5121>.
110. *Le Roux, V., Dasgupta, R., Lee, C.-T. A., 2015, Recommended mineral-melt partition coefficients for FRTEs (Cu), Ga and Ge during mantle melting, *American Mineralogist*; <http://dx.doi.org/10.2138/am-2015-5215>.
109. *Dong, L., Shen, B., Lee, C.-T. A., Shu, X., Peng, Y., Sun, Y., Tang, Z., Rong, H., Lang, X., Ma, H., Yang, F., Guo, W., 2015, Germanium/silicon of the Ediacaran-Cambrian Laobao cherts: Implications for bedded chert formation and paleoenvironment interpretations, *Geochemistry, Geophysics, Geosystems*; DOI: 10.1002/2014GC005595.
108. *Ding, S., Dasgupta, R., Lee, C.-T. A., Wadhwa, M., 2015, New bulk sulfur measurements of Martian meteorites and modeling the fate of sulfur during melting and crystallization-Implications for sulfur transfer from Martian mantle to crust-atmosphere system, *Earth and Planetary Science Letters*, 409: 157-167.
107. Lee, C-T A, and Lackey, J. S., 2015, Global continental arc flare-ups and their relation to long-term greenhouse conditions, *Elements* 11:125-130; DOI: 10.2113/gselements.11.2.125.
106. Zheng, J. P., Lee, C.-T. A., Lu, J. G., Zhao, J. H., Wu, Y. B., Xia, B., Li, X. Y., Zhang, J. F., Liu, Y. S., 2015, Refertilization-driven destabilization of subcontinental mantle and the importance of initial lithospheric thickness for the fate of continents, *Earth Planet. Sci. Lett.* 409: 225-231.
105. Lee, C-T A, Morton, D. M., 2015, High silica granites: terminal porosity and crystal settling, *Earth and Planetary Science Letters* 409:23-31.

2014

104. Nielsen, S. G., Shimizu, N., Lee, C.-T. A., Behn, M. D., 2014, Chalcophile behavior of thallium during MORB melting and implications for the sulfur content of the mantle, *Geochemistry, Geophysics, Geosystems* 15; doi:10.1002/2014GC005536.
103. Barnes, J. D., Beltrando, M., Lee, C.-T. A., Cisneros, M., Loewy, S., Chin, E., 2014, Geochemistry of Alpine serpentinites from rifting to subduction: a view across paleogeographic domains and metamorphic grade, *Chemical Geology* 389:29-47.
102. *Erdman, M., Lee, C-T A, 2014, Implications and limitations of buoyancy-driven exhumation of high-pressure and ultrahigh-pressure terranes, *Earth-Science Reviews* 139:33-46.
101. Karlstrom, L., Lee, C-T A, Manga, M, 2014, The role of magmatic crustal thickening on arc front migration, *Geochemistry, Geophysics, Geosystems* 15: doi:10.1002/2014GC005355.
100. Albarede, F., Albalat, E., Lee, C-T A, 2014, An intrinsic volatility scale relevant to the Earth and Moon and the status of water in the Moon, *Meteoritics and Planetary Sciences* 1-10; doi:10.1111/maps.12331.
99. Huang, S., Lee, C.-T. A., Yin, Q.-Z., 2014, Missing lead and high $^3\text{He}/^4\text{He}$ in ancient sulfides associated with continent formation, *Scientific Reports* 4(5314); doi:10.1038/srep05314
98. Lee, C.-T. A., Chin, E. J., 2014, Calculating melting temperatures and pressures of peridotite protoliths: implications for the origin of cratonic mantle, *Earth and Planetary Science Letters*, 397: 184-200, doi:10.1016/j.epsl.2014.06.048.

97. Clausen, B. L., Morton, D. M., Kistler, R. W., **Lee, C.-T. A.**, 2014, Low initial-Sr felsic plutons of the northwestern Peninsular Ranges batholith, southern California, and the role of mafic felsic magma mixing in continental crust formation, *Geol. Soc. Am. Mem.* 211, 317-344, doi:10.1130/2014.1211(08).
96. Morton, D. M., Miller, F. K., Kistler, R. W., Premo, W. R., **Lee, C.-T. A.**, Langenheim, V. E., Wooden, J. L., Snee, L. W., Clausen, B. L., Cossette, P., 2014, Framework and petrogenesis of the northern Peninsular ranges batholith, southern California, *Geol. Soc. Am. Mem.* 211:61-143, doi:10.1130/2014.1211(03).
95. *Thurner, S., Palomeras, I., Levander, A., Carbonell, R., **Lee, C.-T.**, 2014, Evidence for ongoing lithospheric removal in the western Mediterranean: Ps receiver function results from the PICASSO project, *Geochemistry, Geophysics, Geosystems*, 15:1113-1127, doi:10.1002/2013GC005124.
94. *Farner, M. J., **Lee, C.-T. A.**, Putirka, K. D., 2014, Mafic-felsic magma mixing limited by reactive processes: a case study of biotite-rich rinds on mafic enclaves, *Earth Planet. Sci. Lett.* 393:49-59; <http://dx.doi.org/10.1016/j.epsl.2014.02.040>
93. **Lee, C.-T. A.**, Bachmann, O., 2014, How important is the role of crystal fractionation in making intermediate magmas? Insights from Zr and P systematics, *Earth Planet. Sci. Letters*, 393:266-274; <http://dx.doi.org/10.1016/j.epsl.2014.02.044>.
92. *Chin, E. J., **Lee, C.-T. A.**, Barnes, J., 2014, Thickening, refertilization, and the deep lithosphere filter in continental arcs: constraints from major and trace elements and oxygen isotopes, *Earth Planet. Sci. Lett.* 397:184-200; <http://dx.doi.org/10.1016/j.epsl.2014.04.022>
91. **Lee, C.-T. A.**, 2014, The physics and chemistry of recycling lower continental crust, *Treatise of Geochemistry*, 2nd edition, <http://dx.doi.org/10.1016/B978-0-08-095975-7.00314-4>.
90. *Erdman, M., **Lee, C.-T. A.**, Yang, W., Ingram, L., 2014, Sulfur concentration in rock standard reference materials by solution ICP-MS, *Geostandards and Geoanalytical Research*, 38:51-60, DOI: 10.1111/j.1751-908X.2013.00226.x.

2013

89. **Lee, C.-T. A.**, 2013, Copper conundrums, *Nature Geoscience*, doi:10.1038/ngeo2039.
88. ^SShen, B., Wimpenny, J., **Lee, C.-T. A.**, Yin, Q.-Z., Tollstrup, D., 2013, Magnesium isotope systematics of endoskarns: implications for wallrock reaction in magma chambers, *Chemical Geology* 356: 209-214.
87. **Lee, C.-T. A.**, Lee, T.-C., Wu, C.-T., 2013, Modeling the compositional evolution of recharging, evacuating, and fractionating (REFC) magma chambers: implications for differentiation of arc magmas, *Geochimica Cosmochimica Acta*, <http://dx.doi.org/10.1016/j.gca.2013.08.009>.
86. Buono, A. S., Dasgupta, R., **Lee, C.-T. A.**, Walker, D., 2013, Siderophile element partitioning between cohenite and liquid in the Fe-Ni-S-C system and implications for geochemistry of planetary cores and mantles, *Geochimica Cosmochimica Acta* 120:239-250; <http://dx.doi.org/10.1016/j.gca.2013.06.024>.
85. Barnes, J. D., Eldam, R., **Lee, C.-T. A.**, Errico, J. C., Loewy, S., Cisneros, M., 2013, Petrogenesis of serpentinites from the Franciscan complex, western California, USA, *Lithos*, <http://dx.doi.org/10.1016/j.lithos.2012.12.018>.
84. *Nielsen, S., **Lee, C.-T.**, 2013, Determination of thallium in the USGS glass reference materials BIR-1g, BHVO-2g and BCR2g and application to quantitative Tl concentrations by LA-ICP-MS, *Geostandards and Geoanalytical Research*; doi: 10.1111/j.1751-908X.2012.00203.x
83. *Chin, E. J., **Lee, C.-T. A.**, Tollstrup, D. L., Xie, L.-W., Wimpenny, J. B., Yin, Q.-Z. 2013. On the origin of hot metasedimentary quartzites in the lower crust, *Earth and Planetary Science Letters* 361: 120-133.
82. Albarede, F., Ballhaus, C., Blichert-Toft, J., **Lee, C.-T.**, Marty, B., Moynier, F., Yin, Q.Z. 2013. Asteroidal impacts and the origin of terrestrial and lunar volatiles. *Icarus* 222(10):44-52. DOI: 10.1016/j.icarus.2012.10.026.
81. **Lee, C.-T. A.**, Shen, B., Slotnick, B., Liao, K., Dickens, G., Yokoyama, Y., Lenardic, A., Dasgupta, R., Jellinek, M., Lackey, J. S., Schneider, T., Tice, M., 2013, Continental arc-island arc fluctuations, growth of crustal carbonates and long-term climate change, *Geosphere* 9 (doi:10.1130/GES00822.1).

80. *Liao, K., Morton, D. M., **Lee, C.-T. A.**, 2013, Geochemical Diagnostics of Metasedimentary Dark Enclaves: a Case Study from the Peninsular Ranges Batholith, California, *International Geology Review*, 55: 1049-1072, DOI:10.1080/00206814.2012.753684.

2012

79. Jenniskens, P., Fries, M. D., Yin, Q.-Z., Zolensky, M., Krot, A. N., Sandford, S. A., Sears, D., Beauford, R., Ebel, D. S., Friedrich, J. M., Nagashima, K., Wimpenny, J., Yamakawa, A., Nishiizumi, K., Hamajima, Y., Caffee, M. W., Welten, K. C., Laubenstein, M., Davis, A. M., Simon, S. B., Heck, P. R., Young, E. D., Kohl, I. E., Thiemens, M. H., Nunn, M. H., Mikouchi, T., Hagiya, K., Ohsumi, K., Cahill, T. A., Lawton, J. A., Barnes, D., Steele, A., Rochette, P., Verosub, K. L., Gattacceca, J., Cooper, G., Glavin, D. P., Burton, A. S., Dworkin, J. P., Elsila, J. E., Pizzarello, S., Oglione, R., Schmitt-Kopplin, P., Harir, M., Hertkorn, N., Verchovsky, A., Grady, M., Nagao, K., Okazaki, R., Takechi, H., Hiroi, T., Smith, K., Silber, E. A., Brown, P. G., Albers, J., Klotz, D., Hankey, M., Matons, R., Fries, J. A., Walker, R. J., Puchtel, I., **Lee, C.-T. A.**, Erdman, M. E., Eppich, G. R., Roeske, S., Gabelica, Z., Lerche, M., Nuevo, M., Girten, B., Worden, S. P. and (the Sutter's Mill Meteorite Consortium). 2012. Radar enabled recovery of Sutter's Mill, a carbonaceous chondrite regolith breccia, *Science* 338: 1583-1587.
78. Leeman, W. P., MacRae, C. M., Wilson, N. C., Torpy, A., **Lee, C.-T. A.**, Student, J. J., Thomas, J. B., Vicenzi, E. P., 2012, A study of cathodoluminescence and trace element compositional zoning in natural quartz from volcanic rocks: mapping Titanium content in quartz, *Microscopy and Microanalysis* 18: 1-20; doi:10.1017/S1431927612013426.
77. Gazel, E., Plank, T., Forsyth, D., Bendersky, C., **Lee, C.-T. A.**, Hauri, E., 2012, Lithosphere versus asthenosphere mantle sources at the Big Pine volcanic field, California. *Geochemistry Geophysics Geosystems* 13(1): Q0AK06, doi:10.1029/2012GC004060.
76. Tollstrup, D. L., Xie, L.-W., Wimpenny, J. B., Chin, E. J., **Lee, C.-T.**, Yin, Q.-Z., 2012, A trio of laser ablation in concert with two ICP-MSs: simultaneous, pulse-by-pulse determination of U-Pb discordant ages and a single spot Hf isotope ratio analysis in complex zircons from petrographic thin sections, *Geochemistry Geophysics Geosystems* 13; Q03017, doi:10.1029/2011GC004027.
75. **Lee, C.-T. A.**, P. Luffi, Chin, E. J., Bouchet, R., Dasgupta, R., Morton, D. M., Le Roux, V., Yin, Q.-Z., Jin, D., 2012. Copper systematics in arc magmas and implications for crust-mantle differentiation. *Science* 336:64-68.
74. **Lee, C-T A**, Grand, S. P., 2012, Intraplate volcanism, *Nature* 482:314-315.
73. *Chin, E. J., **Lee, C-T A**, Luffi, P, Tice, M, 2012, Deep lithospheric thickening and refertilization beneath continental arcs: case study of the P, T and compositional evolution of peridotite xenoliths from the Sierra Nevada, California, *J. Petrology* 53:477-511.
72. Mittlefehldt, D. W., Beck, A. W., **Lee, C.-T. A.**, McSween, H. Y., Jr., Buchanan, P. C., 2012, Compositional constraints on the genesis of diogenites, *Meteoritics and Planetary Science* 47: 72-98.

2011

71. Lenardic, A., Moresi, L., Jellinek, A. M., O'Neill, C. J., Cooper, C. M., **Lee, C.-T.**, 2011, Continents, supercontinents, mantle thermal mixing, and mantle thermal isolation: theory, numerical simulations, and laboratory experiments, *Geochemistry, Geophysics, Geosystems* 12: Q10016; doi:10.1029/2011GC003663.
70. Nielsen, S. G., Goff, M., Hesselbo, S. P., Jenkyns, H. C., LaRowe, D. E., **Lee, C.-T. A.**, 2011, Thallium isotopes in early diagenetic pyrite – a paleoredox proxy? *Geochimica Cosmochimica Acta* 75: 6690-6704.
69. Beck, A. W., Mittlefehldt, D. W., McSween, Jr., H. Y., Rumble, D., **Lee, C.-T. A.**, Bodnar, R. J., 2011, MIL 03443, a dunite from asteroid 4 Vesta: evidence for its classification and cumulate origin, *Meteoritics and Planetary Science* 46: 1133-1151. Doi:10.1111/j.1945-5100.2011.01219.x
68. *Le Roux, V., Dasgupta, R., **Lee, C.-T. A.**, 2011, Mineralogical heterogeneities in the Earth's mantle: constraints from Mn, Co, Ni and Zn partitioning during partial melting, *Earth and Planetary Science Letters* 307:395-408.

67. *Watt, N. J., Bouchet, R., **Lee, C.-T. A.**, 2011, Exploration of tektite formation processes through water and metal content measurements, *Meteoritics and Planetary Science*; 46:1025-1032; DOI: 10.1111/j.1945-5100.2011.01207.x
66. Richter, K., King, C., Danielson, L., Pando, K., **Lee, C.-T. A.**, 2011, Experimental determination of the metal/silicate partition coefficient of Germanium: implications for core and mantle differentiation, *Earth Planetary Science Letters* 304:379-388.
65. Levander, A., Schmandt, B., Miller, M. S., Liu, K., Karlstrom, K. E., Crow, R. S., **Lee, C.-T. A.**, Humphreys, E. D., 2011, Continuing Colorado Plateau uplift by delamination-style convective lithospheric downwelling, *Nature* 472:461-466; doi:10.1038/nature100001.
64. *Dyer, B., **Lee, C.-T. A.**, Leeman, W. P., Tice, M., 2011, Open-system behavior during pluton-wallrock interaction as constrained from a study of endoskarns in the Sierra Nevada batholith, *J. Petrology*, 52(10): 1987-2008; doi:10.1093/petrology/egr037.
63. **Lee, C.-T. A.**, Luffi, P., Chin, E., 2011, Building and destroying continental mantle, *Annual Reviews of Earth and Planetary Sciences* 39:59-90.
62. Danadurai, S. K., Chellam, S., **Lee, C.-T.**, Fraser, M., 2011, Trace elemental analysis of airborne particulate matter using dynamic reaction cell ICP-MS: application to monitoring episodic industrial emission events, *Analytica Chimica Acta*, 686: 40-49.
61. *Shen, B., **Lee, C.-T. A.**, Xiao, S., 2011, Germanium/silica ratios in diagenetic chert nodules from the Ediacaran Doushantou Formation, South China, *Chemical Geology* 280:323-335.

2010

60. **Lee, C.-T. A.**, Luffi, P., Le Roux, V., Dasgupta, R., Albarede, F., Leeman, W., 2010, The redox state of arc mantle using Zn/Fe systematics, *Nature* 468:681-685, doi:10.1038/nature09617
59. Blichert-Toft, J., Moynier, F., **Lee, C.-T. A.**, Telouk, P., Albarede, F., 2010, The early formation of IVA iron meteorite parent body, *Earth Planetary Science Letters* 296: 469-480; doi:10.1016/j.epsl.2010.05.036.
58. *Le Roux, V., **Lee, C.-T. A.**, Turner, S., 2010, Zn/Fe systematics in mafic and ultramafic systems: implications for detecting major element heterogeneities in the Earth's mantle, *Geochimica Cosmochimica Acta* 74:2779-2796.
57. Richter, K., Pando, K., Danielson, L. R., **Lee, C.-T.**, 2010, Partitioning of Mo, P and other siderophile elements (Cu, Ga, Sn, Ni Co, Cr, Mn, V, W) between metal and silicate melt as a function of temperature and melt composition, *Earth and Planetary Science Letters*, 291:1-9.
56. **Lee, C.-T. A.**, Luffi, P., Höink, T., Li, J., Dasgupta, R., Herlund, J., 2010, Upside-down differentiation and generation of a "primordial" lower mantle, *Nature* 463:930-933, doi:10.1038/nature08824.
55. Dasgupta, R., Jackson, M. G., **Lee, C.-T. A.**, 2010, Major element mantle heterogeneity constrained by chemistry of ocean island basalts, *Earth and Planetary Science Letters* 289:377-392.
54. *Little, M. G., **Lee, C.-T. A.**, 2010, Distribution of labile elements in an andosol soil profile from Mount Meru, Tanzania, *Journal of African Earth Sciences*; 57:444-454; doi:10.1016/j.jafrearsci.2009.12.001

2009

53. *Shen, B., Jacobsen, B., **Lee, C.-T. A.**, Yin, Q.-Z., Morton, D. M., 2009, The Mg isotopic systematics of granitoids in continental arcs and implications for the role of chemical weathering in crust formation, *Proceedings of the National Academy of Sciences* 106:20652-20657; doi:10.1073/pnas.0910663106.
52. *Young, H. P., **Lee, C.-T. A.**, 2009, Fluid-metasomatized mantle beneath the Ouachita belt of southern Laurentia: fate of lithospheric mantle in a continental orogenic belt, *Lithosphere* 1: 370-383.
51. *Horodyskyj, U., **Lee, C.-T. A.**, Luffi, P., 2009, Geochemical evidence for exhumation of eclogite via serpentinite channels in ocean-continent subduction zones, *Geosphere* 5: 426-438; doi:10.1130/GES00502.1.

50. Savov, I. P., Leeman, W. P., [Lee, C.-T. A.](#), Shirey, S. B., 2009, Boron isotopic variations in NW USA rhyolites: Yellowstone, Snake River Plain, Eastern Oregon, *J. Volcanology and Geothermal Research* 188: 162-172; doi:10.1016/j.jvolgeores.2009.03.008.
49. Debaille, V., Tronnes, R. G., Brandon, A. D., Waight, T. E., Graham, D. W., [Lee, C.-T. A.](#), 2009, Primitive off-rift basalts from Iceland and Jan Mayen: Os-isotopic evidence for a mantle source containing enriched subcontinental lithosphere, *Geochimica Cosmochimica Acta* 73: 3423-3449; doi:10.1016/j.gca.2009.03.002.
48. Canil, D., [Lee, C.-T. A.](#), 2009, Were deep cratonic roots hydrated in Archean oceans? *Geology* 37:667-670. Doi: 10.1130/G25610A.1
47. *Luffi, P., Saleeby, J., [Lee, C.-T. A.](#), Ducea, M. N., 2009, Lithospheric mantle duplex beneath the central Mojave Desert revealed by xenoliths from Dish Hill, California, *J. Geophysical Research*, 114: B03202, doi:10.1029/2008JB005906.
46. [Lee, C.-T. A.](#), [§]Luffi, P., Plank, T., *Dalton, H. A., Leeman, W. P., 2009, Constraints on the depths and temperatures of basaltic magma generation on Earth and other terrestrial planets using new thermobarometers for mafic magmas, *Earth Planet. Sci. Lett.* 279:20-33.

2008

45. [Lee, C-T A.](#), *Oka, M, Luffi, P, Agranier, A., 2008, Internal distribution of Li and B in serpentinites from the Feather River Ophiolite, California based on laser ablation ICP-MS, *Geochemistry, Geophysics, Geosystems* 9: doi:10.1029/2008GC002078.
44. *Li, Z-X A, [Lee, C-T A.](#), Peslier, A, Lenardic, A, Mackwell, S J, 2008, Water contents in mantle xenoliths from the Colorado Plateau and vicinity: implications for the rheology and hydration-induced thinning of continental lithosphere, *J. Geophys. Res.* 113: doi:10.1029/2007JB005540.
43. [Lee, C.-T. A.](#), Luffi, P., Höink, T., Li, Z.-X. A., Lenardic, A., 2008, The role of serpentine in preferential craton formation in the late Archean by lithosphere underthrusting, *Earth Planet. Sci. Lett.* 269: 96-104.
42. [Lee, C-T A.](#), Morton, D M, Little, M G, Kistler, R, Horodyskyj, U, Leeman, W P, Agranier, A, 2008, Regulating continent growth and composition by chemical weathering, *Proceedings of the National Academy of Sciences* 105:4981-4985.
41. [§]Höink, T., [Lee, C.-T. A.](#), Hawthorne, J., Lenardic, A., 2008, Paleo-viscometry of magma bodies, *Earth Planet Sci. Lett.* 267:100-106.
40. [§]Miller, M. S., [Lee, C.-T. A.](#), 2008, Possible chemical modification of oceanic lithosphere by hotspot magmatism: seismic evidence from the junction of Ninetyeast Ridge and the Sumatra-Andaman arc, *Earth Planet Sci. Lett.* 265: 386-395.
39. *Nijjer, S., Rogers, W. E., [Lee, C.-T. A.](#), Siemann, E., 2008, The effects of soil biota and fertilization on the success of *Sapium sebiferum*, *Applied Soil Ecology* 38: 1-11.

2007

38. Courtier, A. M., Jackson, M. G., Lawrence, J. F., Wang, Z., [Lee, C.-T. A.](#), Halama, R., Warren, J. M., Workman, R., Xu, W., Hirschmann, M. M., Larson, A. M., Hart, S. R., Lithgow-Bertelloni, C., Stixrude, L., Chen, W.-P., 2007, Correlation of seismic and petrologic thermometers suggests deep thermal anomalies beneath hotspots, *Earth Planet Sci. Lett.* 264: 308-316.
37. [Lee, C.-T. A.](#), Morton, D. M., Kistler, R. W., Baird, A. K., 2007, Petrology and tectonics of Phanerozoic continent formation: from island arcs to accretion and continental arc magmatism, *Earth Planet. Sci. Lett.* 263: 370-387.
36. [§]Agranier, A., [Lee, C.-T. A.](#), Li, Z.-X. A., Leeman, W. P., 2007, Fluid mobile element budgets in serpentinitized oceanic lithospheric mantle: insights from B, As, Li, Pb, PGEs and Os isotopes in the Feather River Ophiolite, California, *Chem. Geol.* 245: 230-241.
35. [§]O'Neill, C., Lenardic, A., Moresi, L., Torsvik, T. & [Lee, C.-T. A.](#), 2007, Episodic Precambrian subduction, *Earth Planet. Sci. Lett.* 262: 552-562.

34. [Lee, C-T A](#), Yin, Q.-Z., Lenardic, A, Agranier, A., O'Neill, C J, Thiagarajan, N., 2007, Trace-element composition of Fe-rich residual liquids formed by fractional crystallization: implications for the Hadean magma ocean, *Geochimica Cosmochimica Acta* 71:3601-3615.
33. ^sAgranier, A., [Lee, C.-T. A.](#), 2007, Quantifying trace-element disequilibria in mantle xenoliths and abyssal peridotites, *Earth Planet. Sci. Lett.* 257: 290-298.
32. *Horodyskyj, U., [Lee, C-T A](#), Ducea, M N, 2007, Similarities between Archean high MgO eclogites and Phanerozoic arc-eclogite cumulates and the role of arcs in Archean continent formation, *Earth Planet. Sci. Lett.* 256: 510-520.
31. [Lee, C.-T. A.](#), Chen, W.-P., 2007, Possible density segregation of subducted oceanic lithosphere along a weak serpentinite layer and implications for compositional stratification of the Earth's mantle, *Earth Planet. Sci. Lett.* 255: 357-366.
30. [Lee, C-T A](#), Harbert, A, Leeman, W P, 2007, Extension of lattice strain theory to mineral/mineral rare-earth element partitioning: a tool for assessing disequilibrium and developing internally consistent partition coefficients between olivine, orthopyroxene, clinopyroxene and basaltic melt, *Geochimica Cosmochimica Acta* doi:10.1016/j.gca.2006.09.014, v. 71: 481-496.

2006

29. Ott, U., Yin, Q.-Z., [Lee, C. T.](#), 2006, s-Process signatures in bulk presolar silicon carbide: a multi-element study, *Memorie della Societa Astronomica Italiana*, 77:891-896.
28. *Little, M. G., and [Lee, C-T A](#), 2006, On the formation of an inverted weathering profile on Mount Kilimanjaro, Tanzania: buried paleosol or groundwater weathering? *Chemical Geology* 235:205-221; doi:10.1016/j.chemgeo.2006.06.012.
27. *Li, Z-X A, and [Lee, C-T A](#), 2006, Geochemical investigation of serpentinitized oceanic lithospheric mantle in the Feather River Ophiolite, California: implications for the recycling rate of water by subduction, *Chemical Geology* 235: 161-185.
26. Yin, Q.-Z., [Lee, C-T A](#), Ott, U., 2006, Signatures of the s-process in presolar silicon carbide grains: barium through hafnium, *Astrophysical Journal* 647:676-684.
25. Levander, A., Niu, F., [Lee, C.-T. A.](#), Cheng, X., 2006, Imag(in)ing the continental lithosphere, *Tectonophysics* 416: 167-185.
24. [Lee C.-T. A.](#) (2006) Geochemical/petrologic constraints on the origin of cratonic mantle. In *Archean geodynamics and environments*, Vol. 164 (ed. K. Benn, J.-C. Mareschal, and K. C. Condie), pp. 89-114. American Geophysical Union Monograph.
23. [Lee, C-T A](#), Cheng, X., Horodyskyj, U., 2006, The development and refinement of continental arcs by primary basaltic magmatism, garnet pyroxenite accumulation, basaltic recharge and delamination: insights from the Sierra Nevada, *Contrib. Mineral. Petrol.* 151:222-242; (DOI 10.1007/s00410-005-0056-1).

2005

22. [Lee, C.-T. A.](#), 2005, Trace-element evidence for hydrous metasomatism at the base of the North American lithosphere and possible association with Laramide low angle subduction, *Journal of Geology* 113:673-685.
21. [Lee, C.-T. A.](#), Leeman, W. P., Canil, D., Li, Z.X.A., 2005, Similar V/Sc systematics in MORB and arc basalts: implications for the oxygen fugacities of their mantle source regions, *Journal of Petrology* 46 (11): 2313-2336.
20. Liu, Y., Shan, G., [Lee, C.-T. A.](#), Hu, S., Liu, X., Honglin, Y., 2005, Melt-peridotite interactions: links between garnet pyroxenite and high-Mg# signature of continental crust, *Earth Planet. Sci. Lett.* 234, 39-57.
19. [Lee, C.-T. A.](#), Lenardic, A., Cooper, C., Niu, F., Levander A., 2005, The role of chemical boundary layers in regulating the thickness of continental and oceanic thermal boundary layers, *Earth Planet. Sci. Lett.* 230, 379-395.

2004

18. *Li, Z.X.A., [Lee, C.-T. A.](#), 2004, The constancy of upper mantle fO₂ through time inferred from V/Sc ratios in basalts, *Earth Planet. Sci. Lett.*, **228**, 483-493.
17. *Thiagarajan, N., [Lee, C.-T. A.](#), 2004, Trace-element evidence for the origin of desert varnish by direct aqueous atmospheric deposition, *Earth Planet. Sci. Lett.* **224**: 131-141.
16. F. Niu, A. Levander, C.M. Cooper, [C.-T. A. Lee](#), A. Lenardic, D.E. James, 2004, Seismic Constraints on the Depth and Composition of the Mantle Keel beneath the Kaapvaal Craton, *Earth Planet. Sci. Lett.* **224**: 337-346.
15. Schmitz, B., Peucker-Ehrenbrink, B., Heilmann-Clausen, C., Aberg, G., Asaro, F., [Lee, C.-T. A.](#), Basaltic explosive volcanism, but no comet impact, at the Paleocene-Eocene boundary: high-resolution chemical and isotopic records from Egypt, Spain and Denmark, *Earth Planet. Sci. Lett.* **225**: 1-17.
14. [Lee, C.-T. A.](#), 2004 Are the core and mantle on speaking terms?, *Science* 306:64-65.

2003

13. [Lee, C.-T. A.](#), Compositional variation of density and seismic velocities in natural peridotites at STP conditions: Implications for seismic imaging of compositional heterogeneities in the upper mantle, *J. Geophys. Res.*, 108(B9), 2441, doi:10.1029/2003JB002413, 2003.
12. [Lee, C-T A](#), Brandon, A. D., Norman, M., 2003, Vanadium in peridotites as a proxy for paleo-fO₂ during partial melting: prospects, limitations, and implications, *Geochimica Cosmochimica Acta* **67**:3045-3064.
11. [C.-T.A. Lee](#), G.J. Wasserburg and F.T. Kyte, Platinum group elements (PGE) and rhenium in marine sediments across the Cretaceous-Tertiary boundary: constraints on Re-PGE transport in the marine environment, *Geochim. Cosmochim. Acta* **67**, 655-670, 2003.

2002

10. [Lee, C-T A.](#), 2002, Platinum-group element geochemistry of peridotite xenoliths from the Sierra Nevada and the Basin and Range, California, *Geochim. Cosmochim. Acta* **66**: 3987-4005.
9. Rudnick, R. L., [Lee, C-T](#), 2002, Osmium isotope constraints on the tectonic evolution of the lithosphere in the southwestern United States, *International Geology Review*, **44**:501-511.

2001

8. [Lee, C-T](#), Rudnick, R L, and Brimhall, G. H., Jr., 2001, Deep lithospheric dynamics beneath the Sierra Nevada during the Mesozoic and Cenozoic as inferred from xenolith petrology, *Geochemistry Geophysics Geosystems* **2**, 2001GC000152.
7. Q.Z. Yin, S.B. Jacobsen, [C.-T. Lee](#), W.F. McDonough, R.L. Rudnick and I. Horn, A gravimetric K₂OsCl₆ standard: application to precise and accurate Os spike calibration, *Geochim. Cosmochim. Acta* **65**, 2113-2127, 2001.
6. [Lee, C-T](#), Yin, Q-Z, Rudnick, R L, Jacobsen, S B, 2001, Preservation of ancient and fertile lithospheric mantle beneath the southwestern United States, *Nature* **411**, 69-73.
5. [Lee, C-T](#), Yin, Q-Z, Lee, T-C, 2001, An internal normalization technique for unmixing total-spiked mixtures with application to MC-ICP-MS, *Computers and Geosciences* **27**, 577-581.

2000

4. [Lee, C-T](#), Yin, Q-Z, Rudnick, R L, Chesley, J T, Jacobsen, S B, 2000, Os isotopic evidence for Mesozoic removal of lithospheric mantle beneath the Sierra Nevada, California, *Science* **289**: 1912-1916.
3. [C.-T. Lee](#), R.L. Rudnick, W.F. McDonough and I. Horn, Petrologic and geochemical investigation of carbonates in peridotite xenoliths from northeastern Tanzania, *Contrib. Mineral. Petrol.* **139**, 470-484, 2000.

1999

2. [C.-T. Lee](#) and R.L. Rudnick, Compositionally stratified cratonic lithosphere: petrology and geochemistry of peridotite xenoliths from the Labait Volcano, Tanzania, in: Proc. VIIIth International Kimberlite Conference, B. J. Dawson volume, J.J. Gurney, J.L. Gurney, M.D. Pascoe and S.R. Richardson, eds., pp. 503-521, 1999.
1. Chesley, J T, Rudnick, R L, and [Lee, C-T](#), 1999, Re-Os systematics of mantle xenoliths from the East African Rift: age, structure, and history of the Tanzanian craton, *Geochimica et Cosmochimica Acta* **63**:1203-1217.

Patents

Lee, C.-T., Wen, Y.-Y., 2017, Hip extension device adaptation for carrying objects, United States Patent No. US 9781992 B2; Pub. No.: US 9781992 B2

Opinions and essays (non peer-reviewed)

7. Lee, C.-T., 2012, Acceptance of the 2009 FW Clarke Award. *Geochimica Cosmochimica Acta* **89**:346-348.
6. Lee, C.-T., 2009, Book Review: Isotope Geology, *Elements* **5**:331.
5. [Lee, C.-T.](#) 2009. Book Review: Quantitative Geochemistry, *Geochemical Society, Geochemical Newsletter* **139**.
4. [Lee, C.-T.](#) 2009. "Lee receives 2008 Hisashi Kuno Award", *EOS Transactions*, **90**(11).
3. [Lee, C.-T.](#) 2007. "Rudnick receives N.L. Bowen award", *EOS Transactions*, **88**(8):98-99.
2. [Lee, C.-T.](#), Little, M. G., 2006, Historically exploited should not be mocked, Letter to the Editor in *The Rice Thresher*, Sep 29, 2006.
1. Simons, F. J., Becker, T. W., Kellogg, J. B., Billen, M., Hardebeck, J., Lee, C.-T. A., Montesi, L. G. J., Panero, W., Zhong, S., 2004, Young solid earth researchers of the world unite! *EOS Transactions, AGU, Vol. 85, Issue 16, 160-161. doi:10.1029/2004EO160011*

Publications in ornithology

(*peer-reviewed)

17. [Lee, C-T](#), 2011, Answers to the January Photo Quiz, *Hard Shorebirds, Birding* **43**:54-57.
16. *[Lee, C-T A](#), Wen, Y-Y, 2010, Breeding-plumaged Curlew Sandpiper *Calidris ferruginea* in Taiwan during the northern winter, *Birding Asia Bulletin of the Oriental Bird Club* **13**:79.
15. [Lee, C.-T.](#), Wen, Y.-Y., 2009, The natural history of the Galapagos Islands, *Natura-Aviflora Press*, 156 pages, ISBN-13: 978-0-9842192-0-9.
14. *[Lee, C-T](#), Birch, A, Eubanks, T., 2008, Advances in the field identification of Western and Eastern Wood-Pewees, *Birding* **40**: 34-40.
13. *[Lee, C-T](#) and Birch, A, 2006, Advances in the field Identification of North American dowitchers, *Birding* **38**:34-43.
12. *[Lee, C-T](#) and Birch, A, 2002, Notes on the distribution, vagrancy, and field identification of American Pipit and "Siberian Pipit", *North American Birds* **56**:388-398.
11. *[Lee, C-T](#) and Birch, A. 2001, Wing covert pattern as a diagnostic feature in identifying immature and female Bullock's and Baltimore Orioles: *reply to A. Jaramillo*, "Wing covert pattern as an aid to identifying female and immature Bullock's and Baltimore Orioles- Another look", *Birding*, **33**: 64-68.
10. *[Lee, C-T](#) and Shany, N 1998, *Birding Taiwan, Birding* **30**:492-503.
9. *[Lee, C-T](#) and Birch A, 1998, Field identification of female and immature Bullock's and Baltimore Orioles, *Birding* **30**: 282-295.
8. *[Lee, C-T](#) and Birch A, 1998, Answers to the June photo quiz, *Birding* **30**: 296-298.

7. *Birch, A. and [Lee, C-T](#), 1997, Field identification of Arctic and Pacific Loons, *Birding* 29: 106-115.
6. [Lee, C-T](#), 1996, Birding Taiwan: 1996 report. In *Foreign Field Note Series*, American Birding Association.
5. *[Lee, C-T](#), 1995, "Birdwatching in Riverside, California", *San Bernardino County Museum Association, Redlands*, volume 42, 218 pp., 117 figures.
4. *Birch, A and [Lee, C-T](#), 1995, Identification of the Pacific Diver - a potential vagrant to Europe, *Birding World* 8:458-466.
3. [Lee, C-T](#), 1994, A teenaged birder's syndrome, *A Bird's Eye-view* 2:6.
2. *[Lee, C-T](#), 1994, More records of breeding Barn Swallows in Riverside, California, *Western Birds* 26:155-156.
1. [Lee, C-T](#), 1994, Birding Taiwan: Trip report from summer 1994. In *Foreign Field Note Series*, American Birding Association

Invited Lectures (Earth Sciences)

131. University of Utah, 2018
130. Goldschmidt keynote, 2018
129. University of Michigan, Smith Lecture, 2018
128. Michigan State University, 2018
127. Gordon Research Conference, 2018
126. Rutgers University, 2018
125. Royal Society, UK 2018
124. U Wyoming, 2018
123. Goldschmidt 2017
122. Washington University, St. Louis (2017)
120. U Nevada, Reno (2017)
119. U Hawaii (2017)
118. UC Davis (2017)
117. UC Riverside (2017)
116. U Florida (2017)
115. U New Mexico (2017)
114. Boston College (2017)
113. Stanford University (2016)
112. University of Washington (2016)
111. Yale University (2016)
110. University of Pennsylvania (2016)
109. University of Las Vegas, NV (2016)
108. U Oregon (Nov, 2015)
107. Vanderbilt University, TN (Oct, 2015)
106. University of Minnesota (April, 2015)
105. UC Santa Barbara (July, 2015) "Rise of oxygen"
104. University of California, Riverside (October, 2014), "Rise and fall of magmatic orogens"
103. ETH, Zurich, Switzerland (September, 2014), "Rise and fall of magmatic orogens"
102. University of California Santa Barbara, February (2014), "Long-term climate evolution"
101. University of Science and Technology in China, Hefei (Dec, 2013)
100. Nanjing University, Nanjing, China (Dec, 2013), "Redox evolution of the mantle"
99. Tongji University, Shanghai, China (Dec, 2013)
98. Chinese Academy of Sciences, Institute of Geochemistry in Guangzhou, China (Dec, 2013)
97. China University of Geosciences, Wuhan, China (Nov, 2013)
96. Northwestern University, Xian, China (Nov, 2013)
95. China University of Geosciences, Beijing (Nov, 2013), "Copper and continental arcs"
94. Chinese Academy of Sciences, Beijing (Nov, 2013), "Continental dynamics and craton formation"
93. Peking University (Nov, 2013), "Long-term climate change and continent formation"
92. University of Victoria, Canada (October, 2013), "Making continental crust"
91. Southern Methodist University, April, 2012,, "Long-term climate change and continent formation"
90. Agassiz Lecturer, Harvard University (March, 2012), "Long-term climate change and continent formation"
89. Scripps Institute of Oceanography, UC San Diego (February, 2012), "Long-term climate change and continent formation"
88. UC Davis, Feb 2012, "Long term climate change and continent formation"
87. UC Berkeley, Physics Dept Lunchtime colloquium, Feb, 2012; "The Earth as a system"
86. Miller Visiting Professor talk, UC Berkeley, CA, Jan 31, 2012, "Copper systematics and continent formation"
85. Thomas A. Mutch Lecture, Brown University, 27 Oct, 2011, "Long-term climate change and continental arcs"

84. Rice University, International Student Orientation, "How to be a successful graduate student", 8 Aug 2011
83. Earthscope Workshop, 19 Sep, 2011, Portland, OR; "Continental lithosphere"
82. Copper and the Pb – paradox, Harvard, May, Dziewonski Festival, 2011
81. Pomona College, California, April, 2011, "Long term climate change and continental arcs"
80. Tokyo Institute of Technology, Japan, Feb 2011, "Mantle differentiation"
79. University of Tokyo, Japan, Feb, 2011 (4 Lecture series)
78. University of Tokyo, Earthquake Research Institute, Japan, Feb 2011, "Cratonic mantle"
77. University of Oregon, 19 Jan, 2011, "Continental lithosphere dynamics"
76. University of California, Los Angeles, 6 Jan, 2011 "Continent formation"
75. Rice University, International Studies Program, 5 Jan, 2011 – "How to be a successful Phd student"
74. American Geophysical Union, Dec 2010 – keynote "Element cycling through time"
73. University of Texas, Austin, Nov, 2010 "Long-term climate change and continent formation"
72. University of Texas, Austin, Nov, 2010 "Redox evolution of the Earth"
71. Texas A&M, Bryan, TX, Oct 2010 "Long-term climate change and continent formation"
70. Cal State Fresno, Sep, 2010 "Long-term climate change and continent formation"
69. Monterey Bay Aquarium, Packard Fellows, September, 2010, Long-term climate change
68. ETH- Zurich, Switzerland, October, 2010 "Life and legacy of continental arcs"
67. Roberts Elementary School, Sept, 2010, Volcanoes
66. Kavli Institute of Theoretical Physics, July 2010, Santa Barbara, CA; "Physics and chemistry of the Earth" chalkboard talk
65. University of Texas, Dallas, March, 2010, Legacy of continental arcs
64. Goldschmidt, keynote talk July, 2010, Redox of sub-arc mantle from Zn/Fe systematics
63. Los Alamos National Laboratory, June 2010, Long-term climate change and continent formation
62. COMPRES Meeting, June, 2010, keynote talk, Intensive variables in the Earth sciences
61. Cornell University, April 2010, Deep lithosphere filter in arcs
60. Lamont Doherty Earth Observatory, Columbia University, April, 2010, "Deep lithosphere filter"
59. University of Iowa, April, 2010, Deep lithosphere filter in arcs
58. Woods Hole Oceanographic Institute/MIT, March 2010, Deep lithosphere filter in arcs
57. University of Colorado, Nov, 2009
56. Lunar and Planetary Institute, Clear Lake, Houston, TX, Oct, 2009
55. Stanford University, Nov, 2009
54. GSA Gold Lecture Series – Donath, October, 2009, Portland, OR
53. Roberts Elementary School, Houston, TX, October, 2009; "Geologic forces" for 4th graders
52. Goldschmidt, 2009, Davos, Switzerland, Keynote talk
51. University of British Columbia, March 2009
50. UC Davis, Feb 2009
49. Roberts Elementary School, Houston, TX, 9 Jan 2009; "What's inside the Earth" for 4th graders
48. University of Southern California Nov 17, 2008
47. Boston University, Oct 2008
46. Kavli Institute of Theoretical Physics (KITP) and Cooperative Institute for Deep Earth Research (CIDER) – lecturer, summer 2008
45. UC Berkeley, "The role of serpentine in making cratonic mantle", 16 April, 2008
44. Tulane University, Louisiana April 25, 2008
43. University of Illinois, Urbana-Champaign, Illinois January 2008
42. "Recycling mafic lower crust" American Geophysical Union, Fall, invited Dec 2007.
41. "Goldilocks problem of making continents" American Geophysical Union, Fall, invited, Dec 2007
40. "Role of weathering in modulating the growth of continents", University of Arizona, Nov, 2007
39. "Weathering, igneous differentiation, life and the origin of continents", Harvard University, 24 Sept 2007
38. "Role of weathering in modulating the growth of continents", UC Berkeley, Nov, 2007
37. "Life, continents, and weathering", Yale University, 25 April, 2007
36. "Igneous and weathering processes in the origin of continents" University of Chicago, 16 Feb, 2007.
35. "Origin of continental lithospheric mantle" U Wyoming Nov 7, 2006
34. "Making continental crust in arcs" U. Wyoming, Nov 6, 2006
33. "The origin of continental crust", Princeton University, Oct, 2006.
32. "Making continents and continental crust", Monterey Bay Aquarium, Packard Fellows Meeting 7 Sep, 2006.
31. CIDER 2006 Workshop – lecture series, Kavli Institute of Theoretical Physics, UC Santa Barbara, CA
30. "Chemical modification of continental lithosphere – implications for the physical

- evolution of continents”, keynote at Goldschmidt, Melbourne, Australia, August, 2006
29. “Continental crust formation from the Sierra Nevada and Peninsular Ranges”, keynote at Penrose conference, Alaska, July 2006.
 28. “Compositional controls on seismic velocities”, invited keynote at IRIS, Tucson, AZ, May 2006
 27. “Origin and evolution of continents” University of New Mexico, Oct 2005
 26. “Constraints on the fO₂ of arcs from V/Sc systematics” invited talk for Goldschmidt 2005.
 25. “Oceanic balance of redox-sensitive elements – constraining paleo-oxygen contents” University of Oklahoma, April, 2005.
 24. “The role of chemical boundary layers in controlling the thickness of oceanic and continental thermal boundary layers”, Geological Society of America Fall Meeting 2004.
 23. “Mantle geochemistry” for Meeting of Young Researchers in the Earth Sciences, La Jolla, CA, August, 2004.
 22. “Origin of continental crust and deep lithosphere dynamics”, Princeton University, 11/18/03.
 21. “Evolution of oxygen in the atmosphere and mantle: the vanadium perspective”, NSCORT Origins of Life, Rensselaer Polytechnic University, NY, 11/03/03.
 20. “Origin of continental crust and deep lithosphere dynamics”, UC Santa Cruz, 10/28/03; Whole Earth Seminar.
 19. “Origin of continental crust and deep lithosphere dynamics”, University of Houston, 10/24/03.
 18. “Transport of platinum group elements in supercritical fluids”, Iceland Deep Drilling Project Organizational Meeting, Iceland, 10/13/02
 17. “An overview of mantle metasomatism”, Unmixing the SNCs: chemical, petrologic, and isotopic components of Martian meteorites, NASA Johnson Space Center, 10/11/02
 16. “The behavior of platinum group elements in the marine environment”, Institute of Earth Sciences, *Academica Sinica*, Taiwan 4/9/02
 15. “Re-Os isotopic studies of mantle xenoliths and implications for deep lithospheric dynamics”, Institute of Earth Sciences, *Academica Sinica*, Taiwan, 4/11/02.
 14. “Geochemical insights into deep lithospheric dynamics beneath western USA”, *University of California, Berkeley*, 3/19/02
 13. “The origin of Archean lithospheric mantle: arcs, plumes or both”, *Rice University*, 3/29/01.
 12. “A geochemical approach to the tectonics and geodynamics of southwestern USA”, *Rice University*, 3/28/01
 11. “A geochemical approach to the tectonics and geodynamics of southwestern USA”, *University of Oregon*, 3/15/01.
 10. “Stability of continental lithosphere: geodynamic and geochemical constraints from southwestern USA”, *University of California, Los Angeles*, 2/6/01.
 9. “Stability of continental lithosphere: geodynamic and geochemical constraints from southwestern USA”, *Brown University departmental colloquium*, 2/1/01.
 8. “Origin of Si-enriched cratonic mantle by infusion of cumulate orthopyroxene in deep ultramafic magma chambers”, *Brown University Lunchtime seminar*, 2/1/01.
 7. “Deep lithospheric dynamics in the North American Cordillera”, *University of California, Riverside, Geoclub*, 12/7/00.
 6. “Deep lithospheric dynamics in the Sierra Nevada and Mojave Desert”, *Caltech Geology Club*, 12/6/00.
 5. “On the origin and stability of continental lithosphere: insights from the lithospheric mantle”, *Woods Hole Oceanographic Institute*, 10/31/2000.
 4. “Os isotopic evidence for delamination of lithospheric mantle beneath the Sierra Nevada”, *The University of Chicago Geophysics weekly seminar* (2/25/00)
 3. “Os isotopic evidence for delamination of lithospheric mantle beneath the Sierra Nevada”, *Northwestern University special departmental seminar* (2/24/00)
 2. “Re-Os isotopic evidence for unusual Archean lithospheric mantle beneath Mojavia (and refractory Proterozoic lithosphere beneath the Colorado Plateau): the role of bulk composition in lithosphere stability”, *GSA Annual Meeting*, Reno, 11/14/00 (Deep structure of Archean cratons).
 1. “Thermobarometric and Os isotopic evidence for Mesozoic delamination of lithospheric mantle beneath the Sierra Nevada”, *GSA Annual Meeting*, Reno, 11/15/00 (Xenolith-based studies of the physical and chemical evolution of the deep North American lithosphere)

NATURAL HISTORY EXPERIENCE

Appointments

Member of the Texas Rare Birds Committee (2006-2008)

Teaching

BIOS 337/237 – Field Bird Biology at Rice University

Official talks/lectures/courses/field trips in ornithology

- 2018 – Ebird User's guide, Houston Audubon
2018 – Sparrow identification, Discovery Center, Houston
2017 – Empidonax identification, Houston Ornithology Group, TX
2016 – Empidonax identification, Dallas Audubon Society, TX
2016 – Gull identification, Houston Ornithology Group, TX
2015 – Identification of Empidonax Flycatchers, Kleb Woods Nature Preserve
2015 – Sparrow identification, Nature Discovery Center, Bellaire, TX
2014 – Shorebird workshop for Nature Discovery Center, Bellaire, TX
January, 2012 – field trips in Houston for Texas Ornithological Society
16 November, 2012 – Lecture on shorebird identification; Kleb Woods Nature Preserve
March, 2012, Houston Audubon Society, Lake Anahuac, TX
8 November 2008, Texas Ornithological Society Field Trip, Upper Texas Coast
11 October 2008, Geological Society of America Birding field trip, Galveston, TX
27 March, 2008, Invited Lecture, Galveston Audubon Society, Texas
29 Sep, 2007, Leader for Texas Ornithological Society Field Trip to Bolivar Flats
8 Sep, 2007, Leader and organizer of natural history field trip in Monterey and Carmel River, California; 2007 Packard Fellows Meeting and Annual outing.
6 Aug, 2007, Invited Lecture, "Shorebird migration and identification along the Upper Texas Coast", Houston Ornithology Group, Houston, TX.
4 Aug, 2007, Leader for Texas Ornithological Society shorebirding field trip, Upper Texas Coast
13 June, 2007, Invited Lecture, "Dowitcher identification: new advances and potential pitfalls", 13 June, 2007; Los Angeles Audubon Society, West Hollywood, CA
May, 2007 Shorebird Workshop – a two-day shorebird identification course for the Houston Audubon Society; co-taught with Glenn Olsen

Tour guide

Galapagos Islands, Madagascar, Taiwan, Hudson Bay (Canada), California, Texas, Arizona, Tanzania

Other experiences in biology

Reasonably good at identifying North American plants, reptiles, and mammals. Familiar with insect families.

Scientific illustration

Goauche and watercolor, pen-and-ink, scratchboard, and pencil
www.instagram.com/cintylee

Abstracts (not peer-reviewed)

2005 and earlier only

- Lee, C-T A, Anderson, D. L., Cheng, X., 2005, Continental Crust Formation at Arcs, The "Garnet Pyroxenite" Delamination Cycle, And The Origin of Fertile Melting Anomalies in the Mantle, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract_V44C-04
*Li, Z-X A, Lee, C-T A, 2005, Geochemical Investigation of Serpentinized Oceanic Lithospheric Mantle in the Feather River Ophiolite, California: Implications for the Recycling Flux of Water by Subduction, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract_V41A-1421

- O'Neill, C. J., Lenardic, A., Moresi, L., Torsvik, T., **Lee, C-T A.**, 2005, Episodic Precambrian subduction, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract U43B-0835
- Agranier, A., **Lee, C-T A**, Leeman, W. P., 2005, Depth Variations in Redox State and Fluid Mobile Element Enrichments in the Mantle Wedge Beneath the Cascades, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract V31B-0612
- *Hu, M., **Lee, C-T A**, 2005, Increased Oxygenation of the Oceans Since the Mid-Cenozoic as Constrained by Cr/Co and Os/Ir Ratios in Oxidic Pelagic Sediments, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract PP51C-0623
- Sommer, H., Lee, C-T, Regenauer-Lieb, K., 2005, Grain boundaries, a possible water reservoir in the Earth's mantle? *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract V53F-06.
- *Horodyskyj, U., **Lee, C-T**, 2005, An arc origin for Archean high MgO "eclogite" xenoliths? *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract V41B-1438.
- *Harbert, A., **Lee, C-T**, 2005, Towards a comprehensive and internally consistent database for partition coefficients of REEs in ultramafic minerals, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract V43B-1575.
- Lee, C-T A**, Leeman, W P, Canil, D, Li, Z X A, 2005, Similar V/Sc systematics in MORBs and arc basalts: implications for the oxygen fugacities of their mantle source regions, Goldschmidt Conference.
- Lee, C-T A**, Little, M G, 2005 Theoretical and observational links between erosion and chemical weathering, Goldschmidt Conference.
- Yin, Q-Z, Ott, U, Lee, C-T, 2005, The S-process in presolar SiC grains: Barium through Hafnium. 68th Annual Meteoritical Society Meeting, #5053.
- Lee, C-T A**, Lenardic, A., Li, Z. (2005) Transition metal evidence for coherent sections of recycled oceanic lithosphere in hotspot source regions: implications for the origins of hotspot magmatism, *EOS Trans. AGU* 86(18), Jt. Assem. Suppl. V42A-05
- Leeman, W., **Lee, C-T A**, Canil, D, Li, Z., 2004. Similar oxygen fugacities in arc and MORB mantle source regions: evidence from V/Sc systematics, AGU Fall.
- Lee, C-T A**, Lenardic, A., 2004, Lithospheric thickness, preservation of recycled oceanic lithosphere and the importance of water, AGU Fall.
- Li, Z.-X., **Lee, C-T A**, 2004, Geochemical constraints on the origin of serpentinization of oceanic mantle, AGU Fall
- Lee, C-T A**, 2004, Fear not the tectosphere, AGU Fall.
- Little, M. G., **Lee, C-T A**, 2004, Investigating an inverted soil column in Northern Tanzania: Could intense groundwater weathering be the culprit?, AGU Fall.
- Thiagarajan, N., **Lee, C-T A**, 2004, Trace Element Evidence for a Hydrothermal/Magmatic Origin of Stratiform Magnetite Deposits in the Crystal Spring Formation, AGU Fall.
- Lee, C-T**, Lenardic, A, Cooper, C M, Niu, F, Levander, A, The possible role of chemical boundary layers in regulating the thermal thickness of continents and oceans, GSA Fall.
- Li, Z., **Lee, C-T.**, 2004, The constancy of upper mantle fO_2 through time inferred from V/Sc ratios in basalts: implications for the rise in atmospheric O_2 , LPI conference "Oxygen in the terrestrial planets", July 20-23, 2004.
- Lee, C-T**, Lenardic, A, Cooper, C M, Niu, F, Levander, A, On the possible role of chemical boundary layers in regulating the thermal thickness of continents and oceans, AGU Spring Meeting 2004
- Lee, C-T**, Brill, NE, The role of garnet pyroxenites in making continental crust from arc basalts, AGU Spring Meeting 2004
- Niu, F, Levander, Cooper, C M, **Lee, C-T**, Lenardic, A, James, D, Depth of the tectosphere beneath Kaapvaal craton, AGU Spring Meeting 2004.
- Brill, NE, **Lee CA**, The Origin of Continental Crust by Intracrustal Differentiation of Basalt in Magmatic Arcs: Trace and Major Element Evidence From Lower Crustal Eclogites Beneath the Sierra Nevada Batholith; *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract, 2003
- Thiagarajan, N., **Lee, CA**, Trace-Element Evidence for an Aqueous Atmospheric Origin of Desert Varnish: implications for the aqueous atmospheric input flux into the ocean, *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract, 2003
- Lee, C-T**, Xenolith constraints on deep lithospheric dynamics beneath the central North American Cordillera, Geol. Assoc. Canada Meeting Abstract, 2003.
- Lee, C-T Aeolus**, Wasserburg, G J, Kyte F T, Platinum group elements and Re in marine sediments across the K-T boundary; constraints on Re-PGE transport in the marine environment, Abstracts of the 12th annual V. M. Goldschmidt conference, *Geochimica et Cosmochimica Acta*, vol.66, no.15A, pp.440, Aug 2002.
- Lee, C-T**, Wasserburg, G J, Kyte, F T, 2001, The disposition of the PGEs in marine sediments and the K/T boundary, *EOS Trans. AGU*, Fall Meet. Suppl., AGU 82, 662.

- Lee, C-T.** 2001, Osmium isotopic and platinum group element geochemistry of peridotite xenoliths from the Sierra Nevada arc and the Basin and Range, GSA Abst. Prog., p. 304.
- Zheng, L., **Lee, C-T**, Saleeby, J, 2001, Nd-Sr-Os systematics of mantle xenoliths from the Sierra Nevada batholith: structural and geochemical evolution of a subcontinental lithospheric mantle, GSA Abst. Prog., p. 396.
- Lee, C-T**, Rudnick, R L, Q-Z Yin, Jacobsen, S B, 2000, Thermobarometric and Os isotopic evidence for Mesozoic removal of lithospheric mantle beneath the Sierra Nevada, California, Abstracts with Programs - Geological Society of America, vol.32, no.7, pp.387, 2000.
- Lee, C-T**, 2000, An analytical model for wholesale delamination of mafic lower crust, including non-linear viscosity: application to the hypothetical lower crustal delamination event beneath the Sierra Nevada, submitted to GSA Annual Meeting.
- Lee, C-T**, Yin, Q-Z, Rudnick, R L, Jacobsen, S B, 2000, Re-Os isotopic evidence for unusual Archean lithospheric mantle beneath Mojavia (and refractory Proterozoic lithosphere beneath the Colorado Plateau): the role of bulk composition in lithosphere stability, Abstracts with Programs - Geological Society of America, vol.32, no.7, pp.165, 2000.
- Lee, C-T**, 2000, V and Sc systematics in cratonic mantle peridotites: a cumulate origin for the excess Si in the mantle beneath Archean cratons, Xth Goldschmidt Conference, Oxford, England, p. 630.
- Lee, C-T**, Yin, Q-Z, Rudnick, R L, Jacobsen, S B, 2000, The role of lithospheric mantle in continent stability: Re-Os isotopic mapping of the upper mantle in southwestern USA, Xth Goldschmidt Conference, Oxford, England, p. 631
- Yin, Q-Z, **Lee, C-T**, 2000, Plasma centrifuge and isotopic fractionation in MC-ICP-MS, 10th Goldschmidt Conference, Oxford, England, p. 1113.
- Rudnick, R L, **Lee, C-T**, Yin, Q-Z, 2000, Crustal Recycling through lithospheric delamination and the nature of the Moho: a case study from the Sierra Nevada, USA, in Pan-Lithoprobe II workshop (in press).
- Lee, C-T**, Yin, Q-Z, Rudnick, R L, Jacobsen, S B, 2000, Osmium isotopic evidence for contrasting geodynamic evolution of continental lithospheric mantle beneath southwestern USA: the role of bulk composition in lithosphere stability, EOS Trans. (in press).
- Yin, Q-Z, **Lee, C-T**, Jacobsen, S B, 2000, Osmium spike calibration, meteorite isochron, and the ^{187}Re half-life, EOS Trans. (in press).
- Chesley, J T; Rudnick, Roberta L; Lee, C T, Geochemical evidence for plume metasomatism and old lithospheric mantle beneath the East African Rift in Tanzania, Abstracts with Programs - Geological Society of America, vol.32, no.7, pp.164, 2000
- Lee, C-T**, Yin, Q-Z, Rudnick, R L, Chesley, J T, Jacobsen, S B, 1999, Os isotopic and thermobarometric evidence for recent delamination of the subcontinental lithospheric mantle beneath the Sierra Nevada, California, EOS Trans. 80:1175-1176.
- Yin, Q-Z, **Lee, C-T**, Jacobsen, S B, 1999, The ^{187}Re half-life and accurate determination of Re and Os concentrations in meteorites, Eos, Transactions, American Geophysical Union, vol.80, no.46, Suppl., pp.1076, 16 Nov 1999.
- Yin, Q-Z, **Lee, C-T**, McDonough, W F, Horn, I, Rudnick, R L, Jacobsen, S B, 1999, Precise and accurate calibration of Os spike, *Lunar & Planetary Science Abstracts XXIX*, 335.
- Lee, C-T**, Yin, Q-Z, Chesley, J T, Rudnick R L, McDonough, W F, Brimhall, G H, Jacobsen, S B, 1999, Delamination of continental lithosphere beneath an active margin? Thermobarometric and Re-Os isotopic constraints from Sierra Nevada xenoliths, *Lunar & Planetary Science Abstracts XXIX*, 168.
- Lee, C-T**, Yin, Q-Z, Horn, I, Rudnick, R L, McDonough, W F, 1999, Metasediments in the lower crust: tectonic origin inferred from in-situ Hf isotopic analyses of zircons in a metasedimentary xenolith, *Lunar & Planetary Science Abstracts XXIX*, 167-168.
- Rudnick, R L, Chesley, J T, **Lee, C-T**, 1999, Impingement of a mantle plume on cratonic lithosphere, East African Rift, Tanzania, *EOS Trans.* 80:215.
- Rudnick, R L, McDonough, W F, Horn, I, **Lee, C-T**, Brennan, J M, Sattari, P, 1998, In situ studies of PGEs: natural and synthetic sulfides and silicates, *EOS Trans.* 79:953.
- Lee, C-T** and Rudnick, R L, 1998, The origin and demise of cratonic lithosphere: a geochemical perspective from the Tanzanian craton, *7th Internat. Kimberlite Conf.*, Cape Town, Extended Abstracts, 492-494.
- Lee, C-T**, 1998, Are inflected geotherms real?, *7th Internat. Kimberlite Conf.*, Cape Town, Extended Abstracts, 489-491.
- Lee, C-T** and Rudnick, R L, 1997, The formation and destruction of cratonic lithosphere; insights from the Tanzanian craton, *EOS Trans.* 78:746.

