

Christy B. Till

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Education

2011 Ph.D., Massachusetts Institute of Technology

Melt Generation in the Earth's Mantle at Convergent Plate Margins

Principal Advisor: Prof. T.L. Grove

Committee: S.A. Bowring, L.T. Elkins-Tanton, O. Jagoutz (MIT), M. Behn (WHOI)

2005 M.S., University of California, Santa Barbara

The transition from Oligo-Miocene subduction-related volcanism to late Miocene transtensional volcanism in southern Sonora, Mexico; a case study in petrotectonic fingerprinting

Principal Advisor: P.B. Gans

Committee: F.J. Spera, J. Mattinson

2004 B.S., University of California, Santa Barbara, Highest Honors

Constraints on the Origin of Volcanic Ash Found in Mayan Pottery, Belize

Principal Advisor: F.J. Spera

Professional Experience

Jan 2014-present	Assistant Professor, School of Earth and Space Exploration, Arizona State University
2012-2013	Mendenhall Postdoctoral Scholar, US Geological Survey, Menlo Park CA
2012-2013	Visiting Scholar, Dept. of Geological & Environmental Sciences, Stanford University
2011	Postdoctoral Associate, Dept. of Earth, Atmospheric and Planetary Sciences, MIT
2006-2011	Graduate Research Assistant, Dept. of Earth, Atmospheric and Planetary Sciences, MIT
2006	Post-MS Research Assistant, Dr. Frank Spera, UC Santa Barbara
2005	Forest Geologist, US Forest Service, Los Padres National Forest

Publications

- 18) **Till, C.B.**, 2015, Big Geochemistry (News & Views), Nature, v. 532, p. 293-294, doi:10.1038/523293a.
- 17) **Till, C.B.**, Vazquez, J.A., Boyce, J.W., 2015, Months between rejuvenation and volcanic eruption at Yellowstone caldera, Wyoming, Geology, v.43, no. 8., p. 695-698, doi:10.1130/G36862.1
Media Coverage of the paper included:
[ASU press release](#) [AAAS Eurekalert](#)
["Ars Technica" article on the paper](#) [Science Daily](#)
["Serious Science" article on the paper](#) [Phys.org](#)
["The Earth Story" article on the paper](#)
- 16) Grove, T.L., **Till, C.B.**, 2015, Melting of the Earth's Upper Mantle, Encyclopedia of Volcanoes, Second Edition, Haraldur Sigurdsson, editor, p. 35-47.
- 15) Grove, T.L., Holbig, E.S., Barr, J.A., **Till, C.B.**, Krawczynski, M.J., 2013, Melting of compositionally variable upper mantle in the garnet stability field: Distinguishing melts of lherzolite and pyroxenite source regions, Contributions to Mineralogy and Petrology, Vol. 166, No. 3, p.887-910, doi: 10.1007/s00410-013-0899-9.
- 14) **Till, C.B.**, Grove, T.L., Carlson, R.W., Donnelly-Nolan, J.M., Fouch, M.J., Wagner, L.S., Hart, W.K., 2013, Depths and Temperatures of Asthenospheric Melting and the Lithosphere-Asthenosphere Boundary in the southern Cascades Arc and Back-Arc, Geochemistry, Geophysics, Geosystems, doi:10.1002/ggge.20070.

- 13) **Till, C.B.**, Grove, T.L., Withers, T., 2012, Reply to 'Comment on "The beginnings of hydrous mantle wedge melting" by Till et al.,' by Stalder, Contributions to Mineralogy and Petrology, Vol. 164, No. 6, p.1073-1076, doi: 10.1007/s00410-012-0796-z.
- 12) **Till, C.B.**, Grove, T.L., Withers, T., 2012, Reply to 'Comment on "The beginnings of hydrous mantle wedge melting" by Till et al.,' by Green, Rosethal and Kovacs, Contributions to Mineralogy and Petrology, Vol. 164, No. 6, p.1083-1085, doi: 10.1007/s00410-012-0803-z.
- 11) **Till, C.B.**, Grove, T.L., and Krawczynski, M.J., 2012, A melting model for variably depleted and enriched lherzolite in the plagioclase and spinel stability fields, Journal of Geophysical Research (Solid Earth), Vol. 117, B06206, doi: 10.1029/2011JB009044.
- 10) Long, M.D., **Till, C.B.**, Druken, K.A., Carlson, R.W., Wagner, L.S., Fouch, M.J., James, D.E., Grove, T.L., Schmerr, N., Kincaid, C., 2012, Mantle dynamics beneath the Pacific Northwest and the generation of voluminous back-arc volcanism, Geochemistry, Geophysics, Geosystems, Vol. 13, No. 1, Q0AN01, doi: 10.1029/2012GC004189.
- 9) Grove, T.L., **Till, C.B.**, Krawczynski, M.J., 2012, The Role of H₂O in Subduction Zone Magmatism, Annual Review of Earth and Planetary Sciences, Vol. 40, p. 413-439, doi:10.1146/annurev-earth-042711-105310.
- 8) **Till, C.B.**, Grove, T.L., Withers, T., 2012, The Beginnings of Hydrous Mantle Wedge Melting, Contributions to Mineralogy and Petrology, Vol. 163, p. 669-688, doi: 10.1007/s00410-011-0692-6.
- 7) **Till, C.B.**, Elkins-Tanton, L.T. and Fisher, K.M., 2010, Low Extent Melts at the Lithosphere-Asthenosphere Boundary, G-cubed, Vol. 11, No. 10, doi:10.1029/2010GC003234.
- 6) Grove, T.L., **Till, C.B.**, Lev, E., Chatterjee, N. and Medard, E., 2010, *Reply to* Global Systematics of Arc Volcano Position, Nature, Vol. 468, p. E6-E8.
- 5) Grove, T.L., **Till, C.B.**, Lev, E., Chatterjee, N. and Medard, E., 2009, Kinematic variables and water transport control the formation and location of arc volcanoes; Nature, Vol. 459, p.694-697.
- 4) **Till, C.B.**, Gans, P.B., and Spera, F.J., 2009, Perils of petrotectonic modeling: A view from southern Sonora Mexico; J. Volcanology & Geothermal Research, Vol. 186, p.160-168.
- 3) Mariner, R.H., Minor, S.A., King, A.P., Boles, J.R., Kellog, K.S., Evans, W.C., Landis, G.A., Hunt, A.G. and **Till, C.B.**, 2008, A landslide in Tertiary marine shale with superheated fumaroles, Coast Ranges, California, Geology, Vol. 36, No. 12, p. 959-962.
- 2) Hirschmann, M.M., Ghiorso, M.S., Davis, F.A., Gordon, S.M., Mukherjee, S., Grove, T.L., Krawczynski, M., Medard, E., and **Till, C.B.**, 2008, Library of Experimental Phase Relations (LEPR): A database and web portal for experimental magmatic phase equilibria data; G-cubed, Vol. 9, Article No. Q03011.
- 1) Spera, F.J., Bohron, W.A., **Till, C.B.**, and Ghiorso, M.S., 2007, Partitioning of trace elements among coexisting crystals, melt and supercritical fluid during isobaric crystallization and melting; American Mineralogist, Vol. 92, p.1881-1898.

Other Publications

- 2) **Till, C.B.**, Krawczynski, M., 2015, A (Brief) Tour of Exciting Topics in Experimental Petrology, American Geophysical Union Volcanology Geochemistry and Petrology Education and Outreach Spotlight.
- 1) **Till, C.B.**, 2014, Big data and quantifying variability top scientific trends list, Eos Trans. AGU, Vol. 95, no. 50, p. 479, doi: 10.1002/2014EO500008.

Conference Presentations

* = Till graduate student
 ^ = Till postdoc

- 35) **C. Till**, J. Vazquez, J. Boyce, 2015 (*Invited*), Setting a Stopwatch for Post-Caldera Effusive Rhyolite Eruptions at Yellowstone caldera, Wyoming, EOS AGU Fall Meeting Abstract V31G-03.
- 34) K. Brugman*, **C. Till**, M. Bose and R. Hervig, 2015, Development of Clinopyroxene as an Igneous Geospeedometer Using NanoSIMS, EOS AGU Fall Meeting Abstract V31B-3030.
- 33) M. Guild*, **C. Till**, R. Hervig, S. Wallis, Boron Isotopic Compositions of High Pressure Hydrous Phases from the Slab-Mantle Wedge Interface, EOS AGU Fall Meeting Abstract V43A-3096.
- 32) S. Cichy^, **C. Till**, K. Roggensack, R. Hervig, A. Clarke, Experimental Evidence for Fast Lithium Diffusion and Isotope Fractionation in Water-bearing Rhyolitic Melts at Magmatic Conditions, EOS AGU Fall Meeting Abstract V43C-3167.

- 31) A. Rubin, K. Cooper, A. Kent, F. Costa Rodriguez, **C. Till**, 2015, Constraining timescales of pre-eruptive events within large silicic volcanic centers, EOS AGU Fall Meeting Abstract V23F-01.
- 30) M. Coombs, J. Vazquez, L. Hayden, A. Calvert, M. Lidzbarski, N. Anderson, **C. Till**, 2015, Rejuvenation of shallow-crustal silicic magma bodies at Augustine and Hayes volcanoes, Alaska, EOS AGU Fall Meeting Abstract V42B-01.
- 29) **Till, C.B.**, 2015, Thermobarometric Constraints on Primitive Arc Magma Genesis: A Review, GeoPRISMS Theoretical & Experimental Institute on Subduction Zones, Redondo Beach, CA.
- 28) Tucker, K. Hervig, R., **Till, C.**, Wadhwa, M., D/H IN NOMINALLY ANHYDROUS PHASES IN MARTIAN METEORITES: IMPLICATIONS FOR THE MARTIAN MANTLE, Meteoritics & Planetary Science Vol. 50.
- 27) **Till, C.B.**, Guild, M.R., Grove, T.L., Carlson, R.W., 2014, (*Invited*) Evidence of Arc Magma Genesis in a Paleo-Mantle Wedge, the Higashi-akaishi Peridotite, Japan, EOS, AGU Fall Meeting Abstract V31G-07.
- 26) **Till, C.B.**, Boyce, J.W., 2014, Interrogating Commonly Applied Initial Condition Assumptions in Geospeedometry using NanoSIMS, EOS, AGU Fall Meeting Abstract V33A-4823.
- 25) Grove, T.L., **Till, C.B.**, 2014, Melting processes at the base of the mantle wedge: Melt compositions and melting reaction for the first melts of vapor-saturated Iherzolite, EOS, AGU Fall Meeting Abstract D121A-4257.
- 24) Rubin, A.E., Cooper, K.M., Kent, A.J.R., Costa Rodriguez, F., **Till, C.B.**, 2014, Using Li Diffusion to Track Thermal Histories within Single Zircon Crystals, EOS, AGU Fall Meeting Abstract V31F-02.
- 23) **Till, C.B.**, Grove, T.L., Carlson, R.W., Wallis, S.R., Mizukami, T., 2014, (*Invited*) Insight into arc magma genesis from the Higashi-akaishi Peridotite, Japan, Goldschmidt Annual Conference, #4067.
- 22) **Till, C.B.**, Grove, T.L., Donnelly-Nolan, J.M., Carlson, R.W., 2013, (*Invited*) Depths and Temperatures of Mantle Melt Extraction in the Southern Cascadia Subduction Zone, EOS, AGU Fall Meeting Abstract S11C-07.
- 21) **Till, C.B.**, Vazquez, J.A., Boyce, J.W., Stelten, M., 2013, Probing the source and timing of rejuvenation and hybridization in post-caldera rhyolite magmas at Yellowstone Caldera, EOS, AGU Fall Meeting Abstract V53A-2763.
- 20) Grove, T.L., Holbig, E.S., Barr, J.A., **Till, C.B.**, Krawczynski, M.J., 2013, How to identify garnet Iherzolite melts and distinguish them from pyroxenite melts, EOS, AGU Fall Meeting Abstract.
- 19) **Till, C.B.**, Matthews, N.E., Vazquez, J.A. (2013) Refining the Chronology of Intracaldera Magmatism Following the Formation of Yellowstone Caldera, GSA Abstracts with Programs, Vol. 45, No. 7, p. 895, Paper 405-8.
- 18) **Till, C.B.**, Grove T.L., 2012 (*Invited*), In Pursuit of Parental Arc Magmas: The effects of pressure on the composition of H₂O-saturated peridotite melts, EOS, AGU Fall Meeting.
- 17) **Till, C.B.**, Vazquez, J.A., Boyce, J.W., Hitzman, C., 2012, Quantifying the interval between rejuvenation and eruption of rhyolite at Yellowstone caldera using high-resolution NanoSIMS geospeedometry, EOS, AGU Fall Meeting.
- 16) **Till, C.B.**, Grove T.L., Krawczynski, M.J., 2011, A new melting model for variably metasomatized mantle and its implications for the generation of intraplate basalts in Oregon's High Lava Plains and the Modoc Plateau, CA, EOS, AGU Fall Meeting, Abstract T44D-06.
- 15) **Till, C.B.**, Grove, T.L., Carlson, R.W., Donnelly-Nolan, J.M., Fouch, M.J., Wagner, L.S., 2011, Shallow Anhydrous Asthenospheric Melting and the Location of the Lithosphere-Asthenosphere Boundary Below Southern Oregon and Northern California, Geological Society of America Abstracts with Programs, V. 43, No. 5, p. 90.
- 14) **Till, C.B.**, Grove, T.L., Carlson, R.W., Donnelly-Nolan, J.M., 2011 (*Invited*), Shallow anhydrous asthenospheric melting and the location of the lithosphere-asthenosphere boundary below southern Oregon and northern California., EarthScope Institute on the Lithosphere-Asthenosphere Boundary, Portland, OR.
- 13) **Till, C.B.**, Grove, T.L., 2010, Experimental Insights into the Subduction Filter, EOS, AGU Fall Meeting, Abstract V12B-04.
- 12) **Till, C.B.**, Grove, T.L., Carlson, R.W., 2010, Message from the Moho: Petrologic Clues to the Origin of Quaternary Basaltic Lavas from Oregon's High Lava Plains, Geologic Society of America Abstracts, V. 42, No. 5, p. 343.
- 11) **Till, C.B.**, Carlson, R.W., Grove, T.L., Wallis, S.R., Mizukami, T., 2009, A Missing Link in Understanding Mantle Wedge Melting, Higashi-akaishi Peridotite, Japan, EOS, AGU Fall Meeting, Abstract V44A-03.

- 10) M.J. Krawczynski, **Till, C.B.**, Barr, J.A., Grove, T.L., 2009, How much of the range in mantle potential temperatures is natural?, EOS, AGU Fall Meeting, Abstract V23B-2058.
- 9) **Till, C.B.**, Grove, T.L., 2008, New Observations on the Melting Behavior of H₂O-Saturated Mantle: Applications to Subduction Zones, EOS, AGU Fall Meeting Abstract V24B-08.
- 8) Elkins-Tanton, L.T., **Till, C.B.**, Fisher, K.M., 2008, Melt Could Create a Sharp Lithosphere-Asthenosphere Boundary Below Eastern North America, EOS, AGU Fall Meeting Abstract U43B-0066.
- 7) **Till, C.B.**, Grove, T.L., Withers A.C., Hirschmann, M.M., 2008 (*Invited*), Unlocking the Secrets of the Mantle Wedge: H₂O-Saturated Peridotite Melting Behavior to 5 GPa, AGU Chapman Conference and Fifth International Orogenic Lherzolite Conference, Mt. Shasta City, CA.
- 6) **Till, C.B.**, Grove, T.L., Withers, A., Hirschmann, M.M., Médard, E., and Chatterjee, N., 2007, Extending the Wet Mantle Solidus: Implications for H₂O Transport and Subduction Zone Melting Processes; EOS Transactions AGU Fall Meeting.
- 5) **Till, C.B.**, Gans, P.B., Spera, F.J., 2007, Wet Melting Prevails in Hot Subduction Zones; Evidence for the Oligo-Miocene Arc in southern Sonora, Mexico, State of the Arc Meeting, Termas de Puyehue, Chile.
- 4) De la Fuente, J., Chatoian, J., King, A.P., **Till, C.B.**, Miller, A.R., Taylor, R.G., 2005, Development of a landslide and debris flow hazard map for the Old and Grand Prix Fires: San Bernardino National Forests, GSA Abstracts with Programs, vol. 37, no. 7, p. 175.
- 3) **Till, C.B.**, Gans, P.B., and Spera F., 2005, From Subduction to Extension/Transtension: A Case Study in Transitional Geochemistry from Sonora, Mexico; GSA Abstracts with Programs, Vol. 37, No. 7, p. 19.
- 2) **Till, C.B.**, Gans, P.B., and Spera, F., 2005, The Tertiary Transition from "Subduction-Related" to "Rift- Related" Magmatism in Southern Sonora, Mexico: A Field, Petrologic, and Geochemical Study; GSA Abstracts with Programs, Vol. 34, No.4, p. 67.
- 1) MacMillan, I., Gans, P.B., and **Till, C.**, 2005, Tectonic Implications of the Volcanic and Structural History of the Sierra Santa Ursula, Sonora, Mexico; GSA Abstracts with Programs, Vol. 34, No. 4, p. 64.

Grants

4. Exoplanetary Ecosystems: Exploring Life's Detectability on Chemically Diverse Exoplanets

NASA Astrobiology

S. Desch (PI), A. Anbar, E. Asphaug, H. Cadillo-Quiroz, J. Elser, H. Hartnett, A. McNamara, S. Neuer, J. Patience, A. Poret-Peterson, J. Raymond, S-H. Shim, E. Shock, **C. Till**, M. Wadhwa, S. Walker, P. Young, M. Zolotov (ASU Co-Is), P. Dijkstra (NAU), D. Ebel (AMNH), M. Ghiorso (UW), N. Hinkel (SFSU), S. Kane (SFSU), C. Lisse (JHU), E. Mamajek (UR), S. Raymond (Bordeaux), M. Turnbull (GSI) (External Co-I's)

60 months, funded 4/2015

\$6,097,436 (4% REC/RID/IIA to Till)

3. Quantifying Geochemical Exchange at the Slab-Wedge Interface with Experiments and Natural Samples

NSF Petrology & Geochemistry

C. Till (PI)

36 months, funded 5/1/15

\$275,216 (100% ASU, 100% RED/RIC/IIA to Till)

2. Facility Support: The Arizona State University SIMS Laboratories

NSF EAR Instrumentation & Facilities

R.L. Hervig (PI), **C. Till**, L. Williams and P. Williams (Co-I's)

36 months, funded 10/2014

\$1,049,881 total (100% ASU, 25% RED/RIC/IIA to Till)

1. Funds to Refurbish the Internally Heated Pressure Vessel Facility at ASU

ASU College of Liberal Arts & Sciences RTS Facility Grant

K. Leinenweber (PI), **C. Till**, R. Hervig, A. Clarke, J. Tyburczy, L. Williams, E. Shock, K. Roggensack (Co-I's).

12 months, funded 3/2014

\$30,000 (100% ASU)

Grants Prior to ASU

USGS Mendenhall Postdoctoral Fellowship, 2012-2013, \$162,240 (salary) + \$42,970 (research expenses).
National Science Foundation Graduate Research Fellowship, 2007-2010
UC Santa Barbara Vice Chancellor of Research Undergraduate Research Grant, 2002-2003

Awards, Honors & Fellowships

- AGU Trailblazer Award, 2014 (*in rec. of AGU service 2008-2014 + for being first student/early career member elected to AGU leadership*)
- USGS Mendenhall Postdoctoral Fellowship, 2012-2013
- AGU Outstanding Student Paper Award, VGP, 2010
- NSF Graduate Research Fellowship, 2007-2010
- AGU Outstanding Student Paper Award, SEDI, 2007
- MIT Presidential Fellowship, 2006-2007
- UCSB G.K. Gilbert Award (best graduate student talk), 2005
- UCSB Teaching Assistant of the Year, 2005
- UCSB Outstanding Senior in Geological Sciences, 2004
- UCSB Vice Chancellor of Research Undergraduate Research Grant, 2002-2003
- UCSB Faculty Women's Scholarship, 2003
- UCSB Robert M. Norris Prize in Field Geology, 2002
- UCSB Dean's List - 7/12 quarters, 2000-2004

Teaching Activities

Courses Taught

- GLG 101 (100 level), ASU, Spring 2016
- Science Communication (500 level), ASU, Fall 2015
- Subduction Zones (400 & 500 level), ASU, Spring 2015
- Petrology (400 level), ASU, Fall 2014 & 2015
- Structural Geology & Field Methods, MIT Lecturer & Teaching Assistant, 2006-2011
- Introduction to Geology, MIT Middle - High School Summer Session Instructor, 2007
- Isotope Tracers, Structure, Field Methods, Field Camp, Intro.Geology, UCSB Teaching Assistant, 2003-2005

ASU Postdoc Advisees

- Sarah Cichy (SESE Exploration Postdoc), started Summer 2014, co-advised with A. Clarke & R. Hervig

ASU Graduate Student Primary Advisees

- Hannah Shamloo (PhD), started Fall 2015
- Meghan Guild (PhD), started Fall 2014
- Kara Brugman (PhD), started Fall 2014

ASU Graduate Student Second Project Advisees

- Aleisha Johnson (PhD), started Fall 2014
- Crystlynda Fudge (PhD), started Fall 2014

ASU Undergraduate Research Advisees

- Mitchell Phillips, Dec 2015-present
- Jamie Shaffer, May 2014-present
- Eric Escoto, May 2014-present (Recipient CLAS Dean's Medal)
- Katherine Sheppard, May 2014- May 2015 (Recipient CLAS Dean's Medal & ASU Outstanding Graduate)

ASU Graduate Student Committees

- Margo Regier (MS), started Fall 2014
- Alyssa Anderson (PhD), started Fall 2014
- Crystlynda Fudge (PhD), started Fall 2014
- Hong Yu Lai (PhD), started Fall 2013
- Dominique Garello (PhD), started 2012
- Chelsea Allison (PhD), started 2010
- Kera Tucker (MS student, M. Wadhwa advisor), graduated May 2015

ASU Oral Exam 5th Committee Member

- Huawei Chen (PhD), Fall 2015
- Kate Potter (PhD), Spring 2015
- Danika Wellington (PhD), Spring 2014

Significant Professional Services & Activities

ASU

- SESE Safety Committee, 2014-present
- ASU SIMS/NanoSIMS Facility Oversight Committee, 2014-present
- Sundial Summer Bridge Program, August 2014, 2015
- SESE Postdoc Development Program 2015-present
- SESE Women in Planetary Sciences Chapter, Faculty Advisor 2014-present
- Presentation on SESE to ASU recruiters, Aug. 2015
- AWIS JumpStarting STEM Careers Panel, Jan. 2016

American Geophysical Union

- AGU Volcanology, Geochemistry and Petrology, Union Medals Nomination Committee, 2015-present
- Chair, Scientific Trends Task Force, 2014
- AGU Board of Directors (*elected*), Jan. 2013-Dec. 2014
- Vice Chair of AGU Council (*elected*), Jan. 2013-Dec. 2014
- AGU Council Leadership Team (*elected*), 2012, Jan. 2013-Dec. 2014
- AGU Council (*elected*), 2010-2012, Jan. 2013-Dec. 2014
- AGU representative to the American Geosciences Institute (AGI), 2010-2012
- AGU Committee on Education & Human Resources, 2008-2010
- Primary Student Representative to AGU, 2008-2010

Editorial

- Editorial Board, Review Editor, *Frontiers in Volcanology*, 2014-present

Peer Reviewer

NSF Petrology & Geochemistry • NSF CAREER • NSF EarthScope • NASA Solar Systems • NASA Emerging Worlds • NERC • Nature • Geology • Earth and Planetary Science Letters • Journal of Petrology • Geochemistry Geophysics Geosystems • American Mineralogist • Contributions to Mineralogy and Petrology • Chemical Geology • Journal of Volcanology and Geochemical Research • Lithos

Invited Talks

- U. Wyoming, 2016
- SESE New Discoveries Lecture, 2016
- AGU Fall Meeting, 2012, 2013, 2014, 2015
- New Mexico State, 2015
- AGU Editors & Chiefs, 2014
- University of Arizona, 2014
- Goldschmidt Meeting, 2014
- Rice University, 2013
- Lawrence Berkeley National Lab/UC Berkeley, 2013
- Stanford University, 2013
- Arizona State University, 2013
- UC Santa Barbara, 2013
- UC Davis, 2012
- UC Santa Cruz, 2012, 2013
- UC Los Angeles, 2012
- Washington University in St. Louis, 2012, 2013
- Soc. of Scientific, Technical & Medical Publishers Annual Meeting, 2012
- Boise State University, 2012 & 2013
- San Jose State University, 2012
- US Geological Survey, Anchorage, AK 2011, Menlo Park CA, 2012 & Reston, VA 2013
- EarthScope Institute on Litho-Astheno Boundary, 2011
- Bryn Mawr College, 2011
- Middlebury College, 2010
- Chapman/5th International Lherzolite Conf., 2008

Scientific Meeting Convener/Session Chair

- AGU Joint Assembly 2015
- Goldschmidt Meeting 2014
- AGU Fall Meeting 2009, 2013, 2014 (2 sessions), 2015 (2 sessions)
- GSA Annual Meeting 2005

Scientific Community Activities

- NSF/NASA Workshop Without Walls on Planetary Habitability, Science Organizing Committee, Feb 2016
- GeoPRISMS Experimental & Theoretical Institute on Subduction Zones, Oct 2015
- NSF Cooperative Studies of the Earth's Deep Interior (CSEDI) Planning Workshop, Jan 2015

- GeoPRISMS Experimental & Theoretical Institute on the Lithosphere-Asthenosphere Boundary, Oct 2011
- GeoPrisms Alaska Primary Site Planning Meeting, Oct 2011
- MARGINS Successor Planning Workshop, Feb 2010
- Science, Engineering, and Tech Congressional Visits Day, MIT Rep, April 2010
- MIT Science Policy Initiative, Student Leader, 2010-2011
- Communicating Science and Engineering, w MIT Knight Fellow Chris Mooney, 2010
- Communicate Science Effectively to the Media Workshop, Union of Concerned Scientists, 2010
- Science Policy Bootcamp, with Chair of MIT's Washington Office, W. Bonneville, 2010

Professional Societies *(year joined in parentheses)*

Geological Society of America (2003) • American Geophysical Union (2005) • Mineralogical Society of America (2006) • Earth Science Women's Network (2010) • National Association of Geoscience Teachers (2013) • Geochemical Society (2014)

Other Experience

My first career was in ballet. I was employed full-time as a professional ballet dancer for five years in two world-renowned companies (Pennsylvania Ballet & Fort Worth Dallas Ballet (now Texas Ballet Theater)) after studying ballet at the School of American Ballet at Lincoln Center in New York City and Ballet Workshop of New England. As a ballet dancer, I received several distinctions including, a Honorable Mention in the Presidential Arts Competition and an invitation to participate in Exploring Ballet with Suzanne Farrell at the Kennedy Center in Washington D.C..