Christy B. Till

781 Terrace Mall
ISTB4, Room 569
Tempe AZ 85287 USA

Phone: 480.727.2828
Email: christy.till@asu.edu
Web: http://christytill.com & http://epic.asu.edu/

RESEARCH INTERESTS

Magma Genesis; Volcano Science; Experimental Petrology; Diffusion Chronometry; Subduction Zones; Mantle Melting; Magmatism on Exoplanets

EDUCATION

2011 Ph.D. in Geochemistry/Geology,
Massachusetts Institute of Technology

2005 M.S. in Geological Sciences,
University of California, Santa Barbara

2004 B.S.in Geological Sciences (Highest Honors),
University of California, Santa Barbara

PROFESSIONAL EXPERIENCE

July 2020-present *Associate Director for Inclusive Community*
Associate Professor
School of Earth & Space Exploration
Arizona State University

2014-2020 *Assistant Professor*, School of Earth & Space Exploration
Arizona State University

2012-2013 *Mendenhall Postdoctoral Scholar*, Volcano Science Center
US Geological Survey

2012-2013 *Visiting Scholar*, Dept. of Geological & Environmental Sciences
Stanford University

2011 *Postdoctoral Associate*, Dept. of Earth, Atmospheric and Planetary Sciences
Massachusetts Institute of Technology

2006 *Post-MS Research Assistant*, Dept. of Geological Sciences
UC Santa Barbara

2005 *Forest Geologist*, Los Padres National Forest
US Forest Service

AWARDS, HONORS & FELLOWSHIPS

2020 Meierjurgen Faculty Fellowship, University of Oregon (*declined*)
2019 Early Career Award, Geological Society of America (GSA), Mineralogy, Geochemistry, Volcanology & Petrology Division

2019-2020 Secretary (*elected*), American Geophysical Union (AGU), Volcanology, Geochemistry & Petrology Section
2017 ASU School of Earth & Space Exploration Best Graduate Professor
2016 NSF Faculty Early Career (CAREER) grant recipient (GEO)
2016 Kavli Frontiers of Science Fellow, National Academy of Sciences
2014 AGU Trailblazer Award (*1st early career elected to AGU leadership 2008-2014*)
2012-2013 USGS Mendenhall Postdoctoral Fellowship
2010 AGU Outstanding Student Paper Award, Volcanology, Geochemistry, Petrology
2007-2010 NSF Graduate Research Fellowship (GEO)
2007 AGU Outstanding Student Paper Award, Study of the Earth's Deep Interior
2006-2007 MIT Presidential Fellowship
2005 UCSB G.K. Gilbert Award (*best graduate student talk*)
2005 UCSB Teaching Assistant of the Year
2004 UCSB Outstanding Senior in Geological Sciences
2002-2003 UCSB Vice Chancellor of Research Undergraduate Research Grant
2003 UCSB Faculty Women's Scholarship
2002 UCSB Robert M. Norris Prize in Field Geology

GRANTS

Title	Agency	Total Funds	Duration	Role/Collaborators	Status
[1] Quantifying Geochemical Exchange at the Slab-Wedge Interface with Experiments & Natural Samples	NSF-EAR 1447342 Petrology & Geochemistry	$275,216 (100% REC/RID/IIA to Till)	36 months, 5/2015-4/2018 (in second no-cost extension)	PI: **C. Till**	Concluded
[2] Facility Support: The Arizona State University SIMS Laboratories	NSF-EAR 1352996 Instrument & Facilities	$1,049,881 (25% =$262,470 to Till)	36 months, 1/2015-12/2017	PI: R. Hervig, Co-PI's: **C. Till** (25%), P. Williams, L. Williams	Concluded
[3] Exoplanetary Ecosystems: Exploring Life's Detectability on Chemically Diverse Exoplanets	NASA NExSS	$6,097,436 (4% = $239,847 REC/RID/IIA to Till)	60 months, 4/2015-3/2020	PI: S. Desch, and 27 Co-I's including **C. Till**	Funded, In Progress
[4] CAREER: Triggering Eruptions: Determination of Pressure-Temperature-Composition-time (P-T-X-t) Histories for Magma Bodies Preceding Eruption	NSF- EAR 1654584 CAREER	$575,033 (100% REC/RID/IIA to Till)	60 months, 1/2017-12/2021	PI: **C. Till**	Funded, In Progress
[5] Experimental Investigation of Li-in-Zircon Diffusion Rates in Natural Silicic Magmatic Zircon	NSF EAR-Supplement to CAREER grant	$6,456 (100% REC/RID/IIA to Till)	12 months (1/2018 – 1/2019)	PI: **C. Till**	Funded, In Progress
[6] Community Facility Support: The Arizona State University SIMS Laboratories	NSF-EAR Instrument & Facilities	$1,638,730 (25% REC/RID/IIA to Till)	48 months (6/1/18-5/30/21)	PI: R. Hervig, Co-I's: **C. Till**, M. Bose, P. Williams, L. Williams	Funded, In Progress

[7] Community Network for Volcanic Eruption Response (CONVERSE)	NSF EAR Research Coordination Network	$310,154 (6.5% REC & 0% RID/IIA to Till)	36 months (9/2018-8/2020)	PI: T. Fischer (UNM), Co-I's: 14 Co-I's including **C. Till**	Funded, In Progress
[8] Volcanism in the eastern Panama-Choco block (Columbia): Constraining tectonic environments and feedbacks during the mid-Miocene	Smithsonian Tropical Research Institute-ASU Collaborative Initiative	$39,819.50 (50% REC & 100% RID/IIA to Till)	12 months (9/2018-9/2019)	PI: **C. Till** & C. Jaramillo	Funded, In Progress
[9] A Research Coordination Network for the SZ4D Initiative	NSF EAR Research Coordination Network	$499,906 (0% REC/RID/IIA to Till)	36 months (7/2018-6/2021)	PI: H. Tobin (UW), no Co-I's. Funded, in Progress. This RCN is funded to organize the relevant communities to design & propose a new funding program at NSF for subduction zone science. I am one of 15 people on the steering committee overseeing the RCN.	
[10] Collaborative Research: Consequences of flat slab subduction on the chemical, structural, and dynamic evolution of continental lithosphere	NSF EAR – Frontier Research in Earth Science (FRES)	ASU Portion $571,580 (25% REC, 100% RID/IIA to Till)	48 months (1/2020-12/2023)	ASU PI: **C. Till,** PI's at other institutions: L. Wagner (Carnegie), T. Becker & B. Horton (UT Austin)	Funded, In Progress
[11] Collaborative Research: Synthesizing arc-scale geochemical, petrologic, and geophysical datasets to investigate causes of volcanic diversity in the Cascades Arc	NSF GeoPRISMS	$262,679 (ASU portion, 100% REC/RID/IIA to Till)	36 months (7/2020 – 6/2023)	**PI: C. Till,** Co-I: A. Kent (OSU), G. Abers (Cornell)	Funded, In Progress

GRANTS PRIOR TO ASU

2012-2013 USGS Mendenhall Postdoctoral Fellowship
2007-2010 National Science Foundation Graduate Research Fellowship
2002-2003 UC Santa Barbara Vice Chancellor of Research Undergraduate Research Grant

PUBLICATIONS

Key to Citation Formatting:
Student, A. = Till Primary Graduate Advisee
Student, A. = Till Primary Undergraduate Advisee
Student, A. = Graduate Student Advised by Till (but not as primary advisor)
‡***Postdoc, A.*** = Till Postdoctoral Advisee

PAPERS IN PROGRESS

34) ***Brugman, K.K.,*** **Till, C.B.**, Bose, M., *to be submitted shortly*, Pyroxene Diffusion Chronometry Using a Proxy for the Diffusion Initial Condition: The Scaup Lake Rhyolite, Yellowstone, Contributions to Mineralogy and Petrology.

33) ***Guild, M.R.,*** **Till, C.B.**, Hervig, R., Mizukami T., Wallis. S. *to be submitted shortly*, Linking hydrous mineral composition to high pressure fluid speciation: an example from the Higashi-Akaishi Ultramafic Body, Japan, Contributions to Mineralogy & Petrology.

32) ***Phillips, M***. **Till, C. B.**, *in review*, Crustal Storage and Magmatic Ascent Rates of the Mt. Shasta Primitive Magnesian Andesite, Contributions to Mineralogy & Petrology.

31) ***Shamloo, H.***, **Till**, **C.B.**, Hervig, R., *in review*, Magnesium Diffusion in Sanidine: Applications for Geospeedometry in Magmatic Systems, Geochemica et Cosmochemica Acta.

30) ***Guild, M.***, **Till, C.B.**, Mizukami, T., Wallis, S., *in review*, Petrogenesis of the Higashi-Akaishi Ultramafic Body: Implications for lower crustal foundering and mantle wedge processes, Journal of Petrology.

29) ****Perez, A.M.***, Desch, S., **Till, C.B.**, Schrader, D., *in review*, An Experimental Investigation of the Planetary Embryo Bow Shock Model as a Chondrule Formation Mechanism, Geochemica et Cosmochimica Acta.

PEER-REVIEWED PUBLICATIONS

28) ***‡Iacovino, K.***, ***M. Guild***, **Till, C.B**., 2020, Aqueous fluids are effective oxidizing agents of the mantle in subduction zones, Contributions to Mineralogy and Petrology, v. 175, no. 4, p. 1-21.

27) Grove, T.L., **Till, C.B.**, 2019, H_2O-rich mantle melting near the slab-wedge interface, Contributions to Mineralogy and Petrology, v. 174, no. 10 p. 80-102.

26) **Till, C.B.**, Vazquez, J.A., Stelten, M., ***Shamloo, H***., ***Shaffer, J.***, 2019, Co-existing Discrete Bodies of Rhyolite and Punctuated Volcanism Characterize Yellowstone's Post-Lava Creek Tuff Caldera Evolution, Geochemistry, Geophysics, Geosystems, v.20, no. 8, p. 3861-3881.

25) ***Brugman, K.***, **Till, C.B.**, 2019, A Low-Aluminum Clinopyroxene-Liquid Geothermometer for High-Silica Magmatic Systems, American Mineralogist, v. 104, no. 7, p. 996-1004.

24) ***Shamloo, H.***, **Till**, **C.B.**, 2019, Decadal Transition from Quiescence to Supereruption; Petrologic Investigation of the Lava Creek Tuff, Yellowstone Caldera, WY, Contributions to Mineralogy and Petrology, v.174, no. 32.

23) **Till, C.B.**, Kent, A., Abers, G., Janiszewski, H., Gaherty, J., Pitcher, B., 2019, The Causes of Spatiotemoporal Variations in Erupted Fluxes and Compositions Along a Volcanic Arc, Nature Communications, v. 10, no. 1350, p. 1-12 (Open Access).

22) Edwards M.A., M.G. Jackson, A.R.C. Kylander-Clark, J. Harvey, G.A. Hagen-Peter, G.G.E. Seward, **C.B. Till**, J.V. Adams, J.M. Cottle, B.R. Hacker, F.J. Spera, 2019, Beyond EM2: extreme enriched and heterogeneous $^{87}Sr/^{86}Sr$ ratios recorded in magmatic plagioclase from the Samoan hotspot, Earth & Planetary Science Letters, v. 511, p. 190-201.

21) ***‡Iacovino, K.***, **Till, C.B**., 2019, DensityX: A program for calculating the densities of hydrous magmatic liquids from 427-1627 °C and up to 30 kbar, Volcanica, vol. 2, no. 1, p.1-10.

20) Cooper, K.M., **Till, C.B.**, Kent, A.J.R., Costa, F., Rubin, A.E., Gravley, D., Deering, C., Cole, J., Bose, M., 2017, Response to "Cold Storage in a Heat Wave?", Science (reply to comment), v. 358 (6370), p. 9145.

19) ****Rubin, A.E.***, Cooper, K.M., **Till, C.B.**, Kent, A.J.R., Costa, F., Gravley, D., Deering, C., Cole, J., Bose, M., 2017, Rapid cooling and cold storage in a silicic magma reservoir recorded in individual crystals, Science, v. 356, iss. 6343, p. 1154-1156, doi:10.1126/science.aam8720.

18) **Till, C.B.**, 2017, A Review & Update of Mantle Thermobarometry for Primitive Arc Magmas (invited paper), American Mineralogist, v. 102, p. 931-947, dx.doi.org/10.2138/am-2017-5783.

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.

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 Asthenopheric 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, v. 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, v. 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), v. 117, no. 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, v. 13, no. 1, Q0AN01, doi: 10.1029/2012GC004189.

9) Grove, T.L., **Till, C.B**., Krawczynski, M.J., 2012, The Role of H_2O in Subduction Zone Magmatism, Annual Review of Earth and Planetary Sciences, v. 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, v. 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, Geochemistry, Geophysics, Geosystems, v. 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., Krawczyniski, M., Medard, E., and **Till, C.B.**, 2008, Library of Experimental Phase Relations (LEPR): A database and web portal for experimental magamatic phase equilibria data; Geochemistry, Geophysics, Geosystems, vol. 9, no. Q03011.

1) Spera, F.J., Bohrson, 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 (NON-PEER REVIEWED)

E) Cooper, K.M., Kent, A.J.R., **Till, C.B.**, Shea, T., Cottrell, L., Andrews, B., Wallace, P. White Paper on the CONVERSE Petrology, Geochemistry, Experiments & Sampling Disciplinary Workshop, September 2019.

D) **Till, C.B.**, Pritchard, M.E., Miller, C.A., ***Brugman, K.K.***, Ryan-Davis, J., 2018, Super-volcanic investigations, Nature Geoscience (News & Views), v. 11, p. 227-229.

C) Anbar, A., **Till, C.B.**, Hannah, M., 2016, Upstairs, Downstairs: Building a Theory of Earth System Evolution, Nature (Commentary), v. 539, p. 25-27, doi:10.1038/539025a.

B) **Till, C.B.**, 2015, Big Geochemistry, Nature (News & Views), v. 532, p.292-294, doi:10.1038/523293a.

A) **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 ABSTRACTS & PRESENTATIONS

Includes 21 presentations led by students I advised. C. Till invitations shown in green and student/postdoc invited/award-winning presentations shown in orange.

84) Ravi, S., Till, C.B., Robinson, M.S., 2020, LUNAR SILICIC MAGMA GENESIS: INSIGHTS FROM PETROLOGICAL MODELING. Lunar & Planetary Science Conference, Houston, TX.

83) **Till. C.B.** ***(Invited)***, Vazquez, J.A., Shamloo, H., Stelten, M.S., 2019, Record of Magma Evolution & Eruption during Yellowstone's Last Caldera Cycle from Geospeedometry & Zircon Petrochronology, American Geophysical Union Meeting Abstract, San Francisco, CA.

82) ***Brugman, K.K.***, ***Phillips, M.G.***, **Till, C.B.,** 2019, Experimental Determination of Rocky Exoplanet Crust Compositions. American Geophysical Union Meeting Abstract P51G-3437, San Francisco, CA.

81) Cardona, A., Leon, S., **Till, C.B**., Jaramillio, J.S., 2019, The Colombian magmatic record of the Panama arc collision and subduction of the Nazca plate, American Geophysical Union Meeting Abstract Y31B-04, San Francisco, CA.

80) Cooper, K.M., Kent, A.J.R., **Till, C.B**., 2019, The spurious controversy about cold vs. warm magma storage and the influence of conceptual models. American Geophysical Union Meeting Abstract V43A-07, San Francisco, CA.

79) ***Guild, M.R.*****, Till, C.B.**, Hervig, R.L., 2019, Linking hydrous mineral chemistry to fluid speciation in the subduction channel. American Geophysical Union Meeting Abstract V53A-04, San Francisco, CA.

78) Kent A.J.R., **Till, C.B.**, Cooper, K.M., 2019, Petrological insights into the initiation of volcanic eruptions. American Geophysical Union Meeting Abstract V21A-04, San Francisco, CA.

77) ***Shamloo, H.*****, Till, C.B,** Kent, A.J.R., Cooper, K., 2019, Constraining first-order controls on volcanic repose time by examining cumulative distribution functions. American Geophysical Union Meeting Abstract V23G-0279, San Francisco, CA.

76) Wagner, L.S., Monslave, G., **Till, C.B.**, Cardona, A., Horton, B.K., Mora A., Parra, M., Becker, T.W., Faccenna, C., Jones, M., 2019, Consequences of Time-varying Subduction Geometry beneath Colombia, American Geophysical Union Meeting Abstract T13B-05, San Francisco, CA.

75) ***Phillips, M.*****, Till, C.B.**, 2019, Decompression Rates of Primitive Magnesian Andesite at Mt. Shasta, California. American Geophysical Union Meeting Abstract V51F-0123, San Francisco, CA.

74) **Till, C.B.** ***(Invited Lecture in Honor of Receiving the 2019 MGPV Division Early Career Award),*** 2019, Conceptual Models of Arc Magmatism: Looking to the Future. Geological Society of America Abstract 241-1, Phoenix, AZ.

73) ***Brugman, K.K.*****, Till, C.B.**, 2019, New Clinopyroxene-Liquid Geothermometer Indicates A Broad Crystallization Interval for Low-Al Clinopyroxene in High-Silicia Magmatic Systems, Geological Society of America Abstract 55-8, Phoenix, AZ.

72) ***Shamloo, H.,*** **C.B. Till,** 2019, Mg Diffusion in Alkali Feldspar; Applications for Diffusion Chronometry in Magmatic Systems. Geological Society of America Abstract T35-338595, Phoenix, AZ.

71) ***Phillips, M.*****, Till, C.B.**, 2019, Decompression Rates via Geospeedometryof Primitive Magnesian Andesite at Mt. Shasta, California. Geological Society of America Meeting Abstract 184-4, Phoenix, AZ.

70) Kent A.J.R., **Till, C.B.**, Cooper, K.M., 2019, Petrological insights into the initiation of volcanic eruptions. Geological Society of America Meeting 184-3, Phoenix, AZ.

69) ***Guild, M.*****, Till, C. B.**, Mizukami, T., Wallis, S., 2019, Preservation of Foundered Lower Crustal Cumulates in the Higashi-Akaishi Ultramafic Body, Japan, Geological Society of America Meeting Abstract 241-3, Phoenix, AZ.

68) ***Brugman, K.K.*** **(*Invited Talk*)**, ***Phillips, M.G.*****, Till, C.B.,** 2019, Stars to Planets: Experimental Determination of Exoplanet Mantle Solidi and Crust Compositions. Presented at Goldschmidt, Barcelona, Spain.

67) **Till, C.B. (*Invited Keynote*),** 2019, Examining the Causes of Along Strike Geologic Heterogeneity in Volcanic Arcs, Interior of the Earth Gordon Conference, South Hadley MA.

66) **Till, C.B. (*Invited*)**, Vazquez, J.A., Stelten, M.S., 2018, Co-existing discrete bodies of Rhyolite and Punctuated Volcanism Characterize Yellowstone's Post Lava Creek Tuff Caldera Evolution, AGU Fall Meeting, Washington D.C..

65) ***Guild, M.*, Till, C. B.**, Mizukami, T., Wallis, S., 2018, Petrogenesis of the Higashi-Akaishi Peridotite, American Geophysical Union Fall Meeting Abstract T21G-0301, Washington D.C.

64) ***Phillips, M.*** & **Till, C.**, 2018. Determining the crustal storage history of Mt. Shasta primitive magnesian andesite to assess magmatic ascent rates. American Geophysical Union Fall Meeting 2018 Abstract, Washington DC.

Kara AGU 2018?

63) **Till, C.B. (*Invited Keynote*),** Kent, A., Abers, G., Janiszewski, H., Gaherty, J., Pitcher, B., 2018, Toward Assessing the Causes of Intra-Arc Diversity, Goldschmidt Conference, Boston.

62) ***‡Iacovino, K.* (*Invited Keynote*), Till, C.B.**, 2018 Can Slab Fluids Oxidize the Sub-Arc Mantle?, Goldschmidt Conference Boston.

61) Hartnett H, **Till C**, Anbar A, Glaser D, ***Guild M*, *‡Iacovino, K.***, Johnson A, Leong J & Ostrander C, 2018, Solid-Earth Processes are Key Drivers in the Evolution of Earth's Redox State and Set the Stage for the Great Oxidation Event, Goldschmidt Conference, Boston, MA.

60) Bose M., **Till C.,** Floss C., 2018, Early solar system chronometry using presolar grains, Goldschmidt Conference, Boston.

59) ***Shamloo, H.*, Till, C**, 2018, Mg Diffusion in Alkali Feldspar; Applications for Diffusion Chronometry in Magmatic Systems, Goldschmidt Conference Boston, MA.

58) Bose, M., **C. B., Till**, and C. Floss, 2018, Chronometry Using Diffusion in Presolar Silicate Grains, Lunar & Planetary Science Conference, Woodlands, TX.

57) **Till, C.B. (*Invited Keynote*)**, 2018, A Petrologist's Eye View of Silicic Magmatic Systems, EOS AGU Chapman: Merging Geophysical, Petrochronologic, and Modeling Perspectives of Large Silicic Magma Systems Abstract P-28, Quinamávida, Maule Region, Chile.

56) ***Brugman, K.K.*, Till, C.B.**, 2018. A Revised Low-Al Clinopyroxene-Liquid Geothermometer for High-Silica Igneous Systems. EOS AGU Chapman: Merging Geophysical, Petrochronologic, and Modeling Perspectives of Large Silicic Magma Systems Abstract P-28, Quinamávida, Maule Region, Chile.

55) ***‡Iacovino, K.*, Till, C.B.**, 2017, Fluid-mediated redox transfer in subduction zones: Measuring the intrinsic fO_2 of slab fluids in the lab, AGU Fall Meeting, New Orleans, LA.

54) ***Brugman, K.K.* (*Invited*), C.B. Till**, 2017. Taking Yellowstone's Temperature: A New Clinopyroxene Geothermometer to Improve Timescales of Pre-Eruptive Events. EOS AGU Fall Meeting Abstract U13B-03, New Orleans, LA.

53) ***Brugman, K.K.*, Till, C.B.**, 2017. A Revised Clinopyroxene-Liquid Geothermometer for Silicic Igneous Systems with Applications to Diffusion Chronometry of the Scaup Lake Rhyolite, Yellowstone Caldera, WY. EOS AGU Fall Meeting Abstract V11C-0365, New Orleans, LA.

52) ***Phillip, M*, Till, C.B.,** 2017, Experimental Constraints on the Melting Behavior of an Mg-Rich Exoplanetary Mantle. AGU 2017. Abstract MR41C-0417, New Orleans, LA

51) ***Guild, M.*, Till, C.B.,** 2017. Developing a Hygrometer for Water-Undersaturated Lherzolite Melts, EOS AGU Fall Meeting Abstract V11B-0346, New Orleans, LA.

50) **Till, C.B,** Kent, A., Abers, G., 2017, Toward Assessing the Causes of Intra-Arc Diversity, A Cascades Perspective, AGU, New Orleans LA.

49) **Till, C.B. (*Invited*),** Kent, A., Abers, G., 2017, Toward Assessing the Causes of Intra-Arc Diversity, A Cascades Perspective, CIDER Pre-AGU Workshop, New Orleans LA.

48) **Till, C. B. (*Invited*),** Kent, A., Abers, G., 2017, An interdisciplinary synthesis of mantle conditions, crustal storage and seismic velocities in the Southern-Central Cascades Arc, IAVCEI, Portland OR.

47) **Till, C.B. (*Invited*),** 2017, An Integrated Approach for Identifying P-T-X-t Histories and Eruption Triggers for Silicic Magmas; An Example Examining the Scaup Lake Rhyolite Yellowstone Caldera, WY, IAVCEI, Portland OR.

46) ***K. Brugman*, C. Till**, 2017, Investigation of the Applicability of Clinopyroxene Geothermometers to Silicic Igneous Systems, IAVCEI, Portland OR.

45) ***H. Shamloo*, C. Till**, 2017, Petrologic Insights into the Triggering Mechanism for the Lava Creek Tuff Super-Eruption, Yellowstone Caldera, WY, IAVCEI 2017, Portland OR.

44) ****Perez, A.M.***, Desch, S.J., Schrader, D.L., **Till, C.B.**, 2017, Determining the Relative Timing of Formation of Chondrules vs. Planetary Embryos Through Experiments. First Billion Years Conference.

43) ****Perez, A.M.***, Desch, S.J., Schrader, D.L., **Till, C.B.**, 2017, Can Porphyritic Chondrules Form in Planetary Embryo Bow Shocks? Chondrules Conference, British Columbia.

42) ***J. Shaffer*, C. Till**, 2016, New Temperature and H_2O estimates for Post Caldera Yellowstone Rhyolite Lavas from Feldspar Geothermometry and Rhyolite-MELTS Modeling EOS AGU Fall Meeting.

41) ***H. Shamloo*, C. Till**, 2016, Petrologic Insights into the Triggering Mechanism for the Lava Creek Tuff Super-Eruption, Yellowstone Caldera, WY, EOS AGU Fall Meeting.

40) ***K. Brugman*, C. Till**, M. Bose and R. Hervig, 2016, Clinopyroxene Diffusion Chronometry of the Scaup Lake Rhyolite, Yellowstone Caldera, WY, EOS AGU Fall Meeting (****Recipient of AGU Outstanding Student Paper Award*****).

39) **C. Till**, J. Boyce, 2016, New Approaches for Identifying the P-T-X-t Histories and Eruption Triggers for Silicic Magmas; An Example Examining the Scaup Lake Rhyolite, Yellowstone Caldera, WY, EOS AGU Fall Meeting.

38) **Till, C.B. (*Invited*),** 2016, A joint petrologic-seismic-MT effort to map the distribution of fluids + melts in subduction zones in 3D, Subduction Zone Observatory Workshop, Boise ID.

37) **Till, C.B. (*Invited*),** 2016, A Review of Mantle Thermobarometry for Primitive Arc Magmas, Goldschmidt Conference, Yokohama, Japan, Abstract #3131.

36) ***Guild, M.***, **Till, C**., Hervig, R., Wallis, S., 2016, Depth of Chlorite Formation: Quantitative Determination Using Boron Isotopes, Goldschmidt Conference, Yokohama, Japan, Abstract #1004

35) **C. Till (*Invited*)**, J. Vazquez, J. Boyce, 2015, 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) ‡***Cichy, S.***, **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 AbstractV42B-01.

29) **Till, C.B. (*Invited*)**, 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. (*Invited*)**, ***Guild, M.R.***, Grove, T.L., Carlson, R.W., 2014, 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 lherzolite, EOS, AGU Fall Meeting Abstract DI21A-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.** ***(Invited)***, Grove, T.L., Carlson, R.W., Wallis, S.R., Mizukami, T., 2014, 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 lherzolite 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 H_2O-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 H_2O-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: H_2O-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.

STUDENT & POSTDOCTORAL SUPERVISION

ASU Postdoc Advisees

Oct 2016-Dec 2018 Dr. Kayla Iacovino, FESD Postdoctoral Fellow
now Experimental Petrologist at NASA JSC experimental lab

July 2014-June 2016 Dr. Sarah Cichy, SESE Exploration Postdoc, co-advised w A. Clarke & R. Hervig
now Research Scientist and IHPV Lab Manager at Universität Potsdam

ASU SESE Graduate Student Primary Advisees

1. Fall 2019-present Felix Ishimwe (PhD Student)
2. Fall 2019-present Jessie Bersson (PhD Student)

Graduated ASU SESE Graduate Student Primary Advisees

3. Fall 2015-Spring 2020 Hannah I. Shamloo, PhD (https://www.hannahshamloo.com)
   now NSF Postdoc at Oregon State, starting Jan 2022: Assistant Professor Central Washington University
4. Fall 2014-Summer 2020 Meghan R. Guild, PhD (https://meghanguild.weebly.com)
   now NSF GeoPRISMS postdoc at Univ. Texas, Austin
5. Fall 2014-Summer 2020 Karalee K. Brugman, PhD, (http://karabrugman.com)
   former NSF Grad Research Fellow, now Carnegie Postdoctoral Fellow
6. Fall 2017-Fall 2019 Mitchell Phillips, MS
   GSA NP Intern, Mt. St. Helens Nat'l Park (cancelled COVID)

ASU SESE Second Project Advisees

In SESE, all PhD students are required to conduct two research projects prior to their PhD candidacy exam, one of which is required to be advised by a faculty who is not their primary research advisor. These research projects ultimately often constitute a chapter of the student's dissertation and/or a publication.

1. Fall 2018 – present Samantha Jacobs (PhD Candidate)
2. Fall 2018 – present Mara Karageozian (PhD Candidate)
3. Summer 2018-present Srinidhi Ravi (PhD Candidate)
4. Spring 2015-present Crystylynda Fudge (PhD Candidate)

Graduated

5. Fall 2017-Spring 2020 Hannah Bercovicci, Graduated MS
6. Spring 2017-Spring 2020 Chadlin Ostrander, Graduated PhD, now Postdoc at WHOI
7. Fall 2015-Spring 2020 Aleisha Johnson, Graduated PhD, now Postdoc at U. Chicago

ASU Graduate Student Thesis Committee Membership (excluding Advisees)

1. Kyle Mohr (SESE, PhD student), *started Fall 2017*
2. Tucker Ely (SESE, PhD candidate), *Graduated Summer 2020, now Postdoc at CU Boulder*
3. Huawei Chen (SESE, PhD candidate), *Graduated Fall 2019, now at Carvana*
4. James Leong (SESE, PhD candidate), *Graduated Summer 2020, now Postdoc at Lamont-Doherty*
5. Soumya Ray (SESE, PhD candidate), *started Fall 2016*
6. Anna Brunner (SESE, MS), *Graduated Spring 2019*
7. Shule Yu (SESE, PhD candidate), *Graduated Fall 2019*
8. Alyssa Anderson (SESE, PhD candidate), *Graduated Spring 2019, now Postdoc at Princeton*
9. Hong Yu Lai (SESE, PhD), *Graduated Summer 2019, now Data Scientist at Carvana*
10. Mary Schultz (SESE, PhD), *Graduated Summer 2017, now Visiting Prof. James Madison University*
11. Margo Regier (SESE, MS), *Graduated Spring 2016, now PhD student Univ. British Columbia*
12. Kera Tucker (SESE, MS), *Graduated Spring 2015, now Systems Engineer, Lockheed Martin*
13. Chelsea Allison (SESE, PhD) *Graduated Spring 2018, now Postdoc Cornell University*
14. Danika Wellington (SESE, PhD), *Graduated Summer 2018, now Scientist at USGS EROS Data Center*
15. Alexandra Reyes (SESE, MS), *Graduated Spring 2018, now Engineering Geologist, GeoSolve Australia*
16. Joey Romero (SESE, MS), *Graduated Fall 2018, now Museum Facilitator, Museum of Science & Industry, Chicago*

ASU Undergraduate Research Advisees

Each of these students conducted research projects I advised for a minimum duration of a year.

1. Fall 2018 – present Jax Webb - *SESE Geology major*
2. Fall 2018- Spring 2019 Emma Valdez – *School of Life Sciences major, SESE geology minor*

3.	Spring 2017-2018	Andrés Aldana – *SESE Geology graduate*
4.	Fall 2016- May 2018	Kelly Vote - *Recipient CLAS Research Scholarship Summer 2017, Now Geology MS Student at N. Arizona University*
5.	Dec 2015-May 2017	Mitchell Phillips - *Recipient CLAS Research Scholarship 2016- 2017, Now MS Student in EPIC lab*
6.	May 2014-Aug 2016	Eric Escoto - *Recipient 2016 CLAS Dean's Medal & 2015 R. Greeley Scholarship, Now ASU PhD Student & NSF Graduate Research Fellow*
7.	May 2014-Aug 2016	Jamie Shaffer – *Received MS Student New Mexico State & now Hydrogeologist at Leonard Rice Engineers Inc.*
8.	May 2014-May 2015	Katherine Sheppard -*Recipient CLAS Dean's Medal & ASU Outstanding Graduate & Barrett Honors Thesis, "Modeling Mantle Genesis of Basalts from Lassen Volcano", now Data Analyst at Raytheon, Tucson*

TEACHING HISTORY

Spring 2016	GLG 101: Introduction to Geology (in-person) *Introductory general education class teaching basic principles of geology, geochemistry, and geophysics.* Enrollment: 220 Students
Fall 2015, Spring 2017, Spring 2019, Spring 2020	SES 494/598: Science Communication (co-taught w R. Hervig F '15) *Primarily a graduate course (2-3 ugrads enrolled) to teach and practice primary skills in effective oral and written science communication to both specialized and general audiences. Course includes significant writing & oral communication practice.* Av. Enrollment: 25
Spring 2015	GLG 494/598: Subduction Zones *Undergraduate & graduate course covering the physics and chemistry of geologic processes occurring in subduction zones from the subducting plate to the surface. Course work includes weekly reading of journal articles, presentations and final research projects.* Enrollment: 35
Fall 2014, 2015, 2016, 2017, 2018, 2019	GLG 424: Petrology (co-taught with R. Hervig in F '14 & F '15) *Undergraduate course (2-3 graduate students enrolled per year) course covering the origin of igneous and metamorphic rocks. Upper division core curriculum in the geosciences track within the BS in the School of Earth & Space Exploration.* Av. Enrollment: 30

Participated as Lecturer

Spring 2016, 2018	THP/HAD 494/598: Animating Scientific Research *One of five featured professors who worked with Herberger students to use art to animate our research. Included weekly engagement and mentoring of the students.* Enrollment: 25
Fall 2014	SES 494/598: Archean Geophysics

	Graduate course in the history of the early Earth. I attended weekly and delivered lectures on the origin of the Earth's continental crust & upper mantle magma genesis. Enrollment: 25
Fall 2015, 2015, 2017, 2018, 2019	GLG 591: Faculty Research Seminar *Presented lecture on the research my group conducts as part of an introductory graduate class.*
Jan. 2014, 2015, 2016, 2017, 2019, 2020	ASU Workshop on Secondary Ion Mass Spectrometry *Week long workshop held by the NSF-supported SIMS Facility at Arizona State University, which includes training on the Cameca 6f and NanoSIMS 50L including: 1) how the secondary ion mass spectrometer (ion microprobe) removes atoms from a sample and transmits ions to detectors, 2) converting the signal into concentrations or isotope ratios, 3) hardware inside the SIMS, 4) practical information on sample preparation and data analysis, 5) examples of applying SIMS to a wide range of geological problems. Fills up within 1 hour of advertisement every year.* Enrollment: 15

INVITED TALKS & COLLOQUIA

College/University/Scientific Agency Colloquia

1.	June 2020	American Museum of Natural History *(cancelled COVID-19)*
2.	April 2020	Bristol University, UK *(cancelled COVID-19)*
3.	November 2019	University of New Mexico, Earth Sciences Colloquium
4.	March 2019	University of Wisconsin, Weeks Lecture
5.	January 2019	Universidad Nacional de Colombia, Sede Medellín, EGEO Seminar
6.	October 2018	University of Nevada, Reno, Geological Sciences Colloquium
7.	September 2018	University of Tennessee, Dept. of Earth & Environmental Science Seminar
8.	May 2018	Stanford University, Dept. Geological & Enviro. Science Colloquium
9.	January 2018	Oregon State University, Geology Seminar
10.	May 2017	University of Wyoming, Geological Sciences Seminar
11.	April 2017	US Geological Survey, Denver CO
12.	April 2017	ASU, School of Earth & Space Exploration Colloquium
13.	November 2016	University of Washington, Earth & Space Sciences Seminar
14.	November 2016	University of Oregon, Dept. of Earth Sciences Seminar
15.	July 2016	Kanazawa University, Geosciences Seminar, Japan
16.	November 2015	New Mexico State, Geological Sciences Seminar
17.	November 2014	University of Arizona, Dept. of Geosciences Colloquium
18.	September 2013	Rice University, Dept. of Earth Science Seminar
19.	September 2013	US Geological Survey, Reston VA, Mendenhall Fellows Seminar
20.	April 2013	Lawrence Berkeley National Lab/UC Berkeley Geology Seminar
21.	March 2013	Stanford University, Dept. Geological & Enviro. Science Colloquium
22.	February 2013	UC Santa Cruz, Whole Earth Seminar
23.	February 2013	Arizona State University, School of Earth & Space Exploration Seminar
24.	February 2013	Washington State University, Earth & Planetary Sciences Seminar
25.	January 2013	UC Santa Barbara, Earth Sciences Seminar

26. January 2013 Boise State University, Dept. Geosciences Seminar
27. October 2012 UC Davis, Earth Sciences Seminar
28. September 2012 UC Santa Cruz, Whole Earth Seminar
29. May 2012 UC Los Angeles, Dept. Earth & Space Sciences Seminar
30. April 2012 San Jose State University, Geology Seminar
31. April 2012 Washington University, St. Louis, Dept. Earth & Planetary Sci. Seminar
32. February 2012 Boise State University, Dept. Geosciences Seminar
33. February 2012 US Geological Survey, Menlo Park, Volcano Science Center Seminar
34. April 2011 US Geological Survey, Anchorage, AK
35. March 2011 Bryn Mawr College, Dept. Geological Sciences Seminar
36. October 2010 Middlebury College, Dept. Geology Seminar

Invited Talks at Scientific Conferences & Meetings

1. December 2019 American Geophysical Union Fall Meeting, Washington DC
2. September 2019 Geological Society of America Annual Meeting, Phoenix, AZ
3. June 2019 CIDER Summer Program on Volcanoes, Berkeley CA
4. June 2019 Gordon Conference: Solid Earth, Mt. Holyoke, MA
5. December 2018 American Geophysical Union Fall Meeting, Washington DC
6. August 2018 Goldschmidt Conference, Boston MA
7. January 2018 Keynote, Chapman Conference on Large Silicic Magmatic Systems, Chile
8. December 2018 Keynote, CIDER workshop @ AGU Fall Meeting, New Orleans, LA
9. August 2017 IAVCEI 2017, Portland OR (2 invited talks)
10. August 2017 IAVCEI 2017, Portland OR (2 invited talks)
11. October 2016 Subduction Zone Observatory Planning Meeting, Boise ID
12. July 2016 Goldschmidt Conference, Yohohama, Japan
13. December 2015 American Geophysical Union Fall Meeting, San Francisco, CA
14. October 2015 GeoPRISMS Experimental & Theoretical Institute on Subduction Zones
15. December 2014 American Geophysical Union Fall Meeting, San Francisco, CA
16. August 2014 Goldschmidt Meeting, Sacramento CA
17. December 2013 American Geophysical Union Fall Meeting
18. December 2012 American Geophysical Union Fall Meeting
19. October 2011 EarthScope Institute on Lithosphere-Asthenosphere Boundary
20. September 2008 Am. Geophysical Union Chapman Conf./5th Int'l Lherzolite Conf.

Other

1. October 2017 ASU KED Talk, ASU, Phoenix AZ
2. November 2016 ASU KED Research Academy Talk, Tempe AZ
3. Fall 2016 Desert Mountain Speaker Series, Scottsdale AZ
4. January 2016 SESE New Discoveries Public Lecture, Tempe AZ
5. January 2014 AGU Editor in Chiefs Meeting, Albuquerque NM
6. May 2012 Society of Scientific, Technical & Medical Publishers Annual Meeting

PROFESSIONAL SERVICE

I. Service to Arizona State University

2018-present SESE Awards Nominations Committee
2014-present SESE Safety & Facilities Committee (2019-present Safety Subcomm. Chair)

2014-present ASU SIMS/NanoSIMS Facility Oversight Committee
2014-present ASU SMS-SESE High Pressure Experimental Facilities Oversight Committee
Spring 2019 SESE Faculty Search Committee, SESE Director
Winter 2016 SESE Faculty Search Committee, Geophysics
Winter 2016 SESE Search Committee, SESE Exploration Postdoctoral Fellowship
Nov. 2016 KED Research Academy Talk "*Behind the Scenes of a Successful NSF Proposal*"
Aug. 2015 Presentation on SESE to ASU Undergraduate Recruiters
2015-2018 SESE Postdoc Development/Workshops for Success Organization Committee

II. Service to Professional Societies and Organizations

2019-present American Geophysical Union, Volcanology, Geochemistry and Petrology Secretary (*elected*)
2019-present Geochemical Society Program Committee
2018-present SZ4D Research Coordination Network, Steering Committee (*to propose new NSF program focused on subduction zone hazard-related science*)
2018-present Co-I, Community Response to Volcanic Eruptions NSF Research Coordination Network (*to organize US academic response in coordination with USGS*)
2015-2018 American Geophysical Union Volcanology, Geochemistry and Petrology Medals Nomination Committee
2014 Chair, American Geophysical Union Scientific Trends Task Force
2013-2014 American Geophysical Union Board of Directors *(elected, 1st early career member to hold position in history of organization)*
2013-2014 Vice Chair of American Geophysical Union Council *(elected, 1st early career member to hold position in history of organization)*
2012-2014 AGU Council Leadership Team *(elected)*
2010-2014 American Geophysical Union Council *(elected, two successive terms)*
2010-2012.1 American Geophysical Union Rep. to the American Geosciences Institute (AGI)
2008-2010.1 American Geophysical Union Comm. on Education & Human Resources
2008-2010 Primary Student Representative to the American Geophysical Union

III. Editorial Service

2017-2020 Assistant Editor, American Mineralogist
2014-2020 Editorial Board, Review Editor, Frontiers in Volcanology
2004-present Manuscript reviewer for Nature • Science • 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 • Frontiers in Volcanology

IV. Grant Proposal and Panel Service

2019 Panelist, NSF EAR Antarctic Earth Science Research Review Panel
2017 Panelist, NSF EAR Studies of the Earth's Deep Interior Review Panel
2016 Panelist, NSF EAR Petrology & Geochemistry Review Panel
2014 Panelist, NASA Solar System Workings Review Panel
2006-present Proposal reviewer for National Science Foundation (NSF) EAR-Petrology & Geochemistry • NSF EAR-CAREER • NSF EAR-EarthScope • NSF-EAR

GeoPRISMS • NSF OCE-Marine Geology & Geophysics • NASA Solar Systems • NASA Emerging Worlds • NERC

V. Service Activities at Scientific Meetings

2012-present	Outstanding Student Paper Judge, American Geophysical Union Fall Meeting
2019	Scientific Session Organizer, Goldschmidt 2019, Barcelona
2019	Invited Participant, GeoPRISMS Experimental & Theoretical Institute on Synthesizing Research Outcomes, San Antonio, TX
2018	Scientific Session Organizer (3 sessions), Goldschmidt 2018, Boston
2018	Division Scientific Organizing Committee, Goldschmidt 2018, Boston
2017	Co-Organizer, Cooperative Institute for Dynamic Earth Research (CIDER) Summer Workshop on Subduction Zone Structure & Dynamics, UC Berkeley, CA
2016	Invited Participant & Speaker, Subduction Observatory Planning Mtg, Boise ID
2016	Science Organizing Committee, NSF/NASA Workshop Without Walls on Planetary Habitability, Tempe Arizona
2015	Convener (3 sessions), American Geophysical Union Fall Meeting, San Francisco CA: "*1) Chemistry of the Earth's Mantle; 2) A Tangled Web? Generation and Transport of Fluids, Volatiles and Melts in Subduction Zones from Source to Surface; 3) Transport of Volatiles from Mantle to Surface: Insights on Diffusion, Exsolution and Migration of Fluids in Magmatic Environments from Natural Samples and Experiments*"
2015	Invited Participant, GeoPRISMS Experimental & Theoretical Institute on Subduction Zones, San Diego, CA
2015	Invited Participant, Diffusion Workshop, Bochum University, Germany
2014	Convener (2 sessions), American Geophysical Union Fall Meeting, San Francisco, CA: "*1) Accelerated and Punctuated: Using Geochronology, Diffusion Modeling, and Numerical Models to Understand Magmatic Processes; 2) Upstairs Downstairs: Consequences of Internal Evolution for the Habitability of Planetary Surfaces*"
2014	Convener, Goldschmidt Conference, Sacramento, CA "*Geologic and Geochemical Processes at the Plate Interface*"
2013	Convener, American Geophysical Union Fall Meeting, San Francisco CA: "*The Detection and Migration of Melt and Volatiles in the Earth's Interior*"
2011	Invited Participant & Speaker, NSF GeoPRISMS Experimental & Theoretical Institute on the Lithosphere-Asthenosphere Boundary, Portland OR
2011	GeoPRISMS Alaska Primary Site Planning Meeting, Portland OR
2010	MARGINS Successor Planning Workshop
2009	Convener, American Geophysical Union Fall Meeting, San Francisco CA, *"Mantle Potential Temperature: A Very Hot Topic"*
2005	Session Chair, Geological Society of America Annual Meeting, Salt Lake City UT *"Tectonics"*

VI. Public Engagement/Outreach

2018	**ASU KED Talk** – one of eight professors from ASU chosen to film an ASU KED Talk in 2018 on my research and path to being a professor. Available here: https://research.asu.edu/kedtalks
2014-2019	**Earth & Space Exploration (ESE) Day -** Open SESE labs to the general public on a weekend day. EPIC lab hosts a series of activities regarding

	studying the Earth's interior, including making your own rock in a simplified version of our high-pressure apparatus, make your own lava lamp, trashcano, and exploring the mantle.
2014-2019	**ASU Night of the Open Door -** Open ASU to the general public on weekend evening. EPIC lab hosts a series of activities regarding similar to ESE Day.
2016	**SESE New Discoveries Public Lecture** - "*When will the Yellowstone supervolcano erupt again?*" Evening public lecture to an audience of over two hundred.
2016	**Desert Mountain Speaker Series, AZ - "***When will the Yellowstone supervolcano erupt again?*" Evening public lecture to an audience of over two hundred.
2010	**MIT 150th Anniversary Open House** - created and led exhibit on geologic history of Massachusetts

VII. Selected Press Coverage & Media

1. March 2019	ASU Now article on Till et al., 2019
2. Dec. 2018	Scientific American article discussing our Yellowstone research
3. May 2018	Science News article featuring our Exoplanet research
4. Nov 2017	Appeared on AZ PBS "Horizon" to discuss Yellowstone Research
5. Oct 2017	Appeared on 12 News "Sunday Square Off" to discuss Yellowstone Research
6. Oct 2017	New York Times article on our research & associated coverage (Snopes, Time, USA Today, Newsweek, Fox News)
7. June 2017	Interviewed on Arizona's KJZZ 'The Show', *"What if Scientists Could Better Predict When A Volcano Might Erupt?"*
8. March 2017	Blog piece for AGU's Plainspoken Scientist
9. Dec. 2016	AGU EOS article on our work at Yellowstone
10. August, 2016	Featured in ASU Now video: "*ASU professors' words of wisdom"*
11. Jan., 2016	Interviewed on KTAR 92.3 News Radio, Phoenix AZ r.e. Yellowstone
12. Nov., 2015	Featured in ASU Connections Podcast
13. July, 2015	"*For smaller eruptions, Yellowstone can wake up quickly*" ArsTechnica.com
14. July, 2015	"*Geologists are setting a Stopwatch for a Yellowstone Eruption,*" Serious-Science.org article on Till et al., 2015
15. July, 2015	"*Creating a stopwatch for volcanic eruptions*", Phys.org article
16. July, 2015	"*Potential for future eruptions at Yellowstone volcano*", ScienceDaily.com
17. July, 2015	"*ASU professor strives to better understand the potential for future eruptions at Yellowstone volcano by studying those in the recent past"* AAAS Eurkalert.org
18. July, 2015	"*Recharging A magma chamber*" the-earth-story.
19. Spring, 2015	"*No Small Feat*" TechConnect Magazine, article on ASU NanoSIMS facility
20. April, 2015	"*UA, ASU teams to search for alien life*", interviewed in Arizona Daily article about NExSS grant

21. March, 2015 "*A (Brief) Tour of Exciting Topics in Experimental Petrology*," co-authored American Geophysical Union Volcanology Geochemistry and Petrology Education and Outreach Spotlight article

VIII. Activities Supporting Inclusion of Underrepresented Minorities in STEM

2020-2021 Associate Director for Inclusive Community, School of Earth & Space Exploration, ASU. *Leadership position to facilitate and incentivize justice & equity work across the school.*

2019 ADVANCEGeo Train the Trainers Workshop (to train facilitators for a workshop to combat hostile (*e.g., harassment & bullying behaviors in Academic STEM environments*)

2019 Bystander Intervention Training for Academic Environments, 4 hours

2014-present Advised PhD projects for ten women (four also underrepresented minorities), and undergraduate research projects for three women and three underrepresented minorities

2014-present Sundial Summer Bridge Program Faculty Participant (*program to entrain and retain under-presented minorities in STEM majors at ASU*)

2014-present SESE Women in Planetary Sciences Chapter, Faculty Advisor

2018-present SESE Awards Nominations Committee

2018 ASU Faculty Women's Association Workshop on Inclusion

2016-2018 500 Women Scientists Pod Leader (*organization that advocates for women and under-represented minorities in STEM in politics*)

2016 Co-designed Online Class on Implicit Bias for ASU Community

2016 Invited Participant, American Women in Science Jump Starting STEM Careers Panel

IX. Professional Society Membership (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..