

Emily Hernandez Goldstein Cooperdock

Assistant Professor

Department of Earth, Environmental and Planetary Sciences

Brown University

[Google Scholar](#)



EDUCATION

- Aug. 2017 Ph.D. **The University of Texas at Austin**, Department of Geological Sciences
Novel (U-Th)/He thermochronometric constraints on serpentinized ultramafic rocks,
Dissertation committee: Dr. Daniel Stockli (advisor) (UT), Jaime D. Barnes (UT), Richard A. Ketcham (UT), Frieder Klein (WHOI), Othmar Müntener (UNIL)
- May 2011 B.A. **Columbia University**, Department of Earth and Environmental Sciences
Depositional environment and detrital zircon dating of the Jardine Metasedimentary Sequence from the South Snowy Mountains in Yellowstone National Park,
Co-advisors: David Mogk (MSU), Darrell Henry (LSU), Nicholas Christie-Blick (Columbia U)

PROFESSIONAL EXPERIENCE

- 2023 - Assistant Professor, Brown University, Providence, RI
- 2023 - Adjunct Professor, University of Southern California, Los Angeles, CA
- 2021-2023* Gabilan Assistant Professor, University of Southern California, Los Angeles, CA
**includes maternity leave in 2021*
- 2019-2021 Assistant Professor, University of Southern California, Los Angeles, CA
- 2017-2019* Postdoctoral Scholar, Woods Hole Oceanographic Institution, Woods Hole, MA
**includes maternity leave in 2017*
- 2012-2017 Graduate Research Assistant, The University of Texas at Austin, Austin, TX
- 2010-2011 Undergraduate Research Assistant, Columbia University, New York, NY

ACADEMIC AWARDS & FELLOWSHIPS

- 2022 USC Mentoring Award for Faculty Mentoring Graduate Students
- 2021 Dorothy LaLonde Stout Education Lecture and Award, American Geophysical Union

- 2021 Gabilan Assistant Professorship, University of Southern California
- 2017 Doherty Postdoctoral Scholarship, Woods Hole Oceanographic Institution
- 2014 Graduate Research Fellowship, National Science Foundation
- 2014 F. Earl Ingerson Graduate Research Assistance Fellowship in Geochemistry, The University of Texas at Austin
- 2014 Graduate Dean's Prestigious Fellowship Supplement, The University of Texas at Austin
- 2014 Chevron Minority Summer Fellowship, The University of Texas at Austin
- 2013 Diversity Award, Geological Society of America
- 2013 Student Research Award, Geological Society of America Mineralogy, Geochemistry, Petrology and Volcanology Division
- 2012 Jackson School Graduate Fellowship, The University of Texas at Austin
- 2010 Golden Hammer Award, University of Kansas (Field Camp)
- 2007 Dean's List (2007-2011), Columbia University

RESEARCH GRANTS

(*active grant)

- 2022 ***NSF EAR: E. H. G. Cooperdock (PI)**, J. D. Barnes (Co-PI), J. S. Lackey (Co-PI), "Collaborative Research: Halogen behavior in the plutonic-to-volcanic arc system.", NSF-EAR-2211241, Total Award: \$555,156. USC award: \$219,557. 8/15/2022-7/31/2025
- 2021 ***NSF EAR: A. Mallik (Co-PI), E. H. G. Cooperdock (Co-PI)**, "Collaborative Research: Tracking nitrogen in mélange matrix from fore-arc to sub-arc depths with implications for deep nitrogen cycling: A combined field and experimental approach", NSF-EAR-2138484, Total award: \$524,956. USC award: \$195,997. 1/1/2022 – 12/31/2024.
- 2021 USC WiSE Major Support Funding: **E. H. G. Cooperdock**, "Postdoc support for state-of-the-art thermochronology laboratory in Earth Science", \$25,000 (maximum awarded).
- 2021 NSF Career-Life-Balance Supplement: **E. H. G. Cooperdock** for "Collaborative Research: Evaluating the exhumation history of the Aleutians with zircon and apatite thermochronology", Total award: \$63,655, one time all to USC.
- 2021 ***NSF OCE: E. H. G. Cooperdock (PI)**, M. Eddy (Co-I): "Collaborative Research: Testing the timing and direction of mantle exhumation at the Iberia-Newfoundland margins with low-temperature thermochronology", NSF-OCE-2049940, Total Award: 330,902. USC Award: \$284,753. 7/15/2021 – 6/30/2024.
- 2020 ***NSF EAR: E. H. G. Cooperdock (Co-PI)**, R. Rudnick (Co-PI), R. E. Bernard (Co-PI), S. L. Goldstein (Co-PI): "Diversifying geochemistry – travel support for students from under-represented constituencies to attend the Goldschmidt Conference." NSF-EAR-2018087, Total award: \$55,200. No funds come to PIs, all funding goes to support student travel grant to Goldschmidt. 4/01/2020 – 3/30/2023.

- 2019 SCEC: K. A. Farley, F. Hofmann, **E. H. G. Cooperdock**, A. J. West (Co-I's): "Cosmogenic ^3He dating of alluvial surfaces using detrital magnetite enabled by microCT scanning", Total Award: \$34,990, one year.
- 2019 ***NSF GeoPRISMS: E. H. G. Cooperdock (PI)**, C. Bucholz (Co-I): "Collaborative Research: Evaluating the exhumation history of the Aleutians with zircon and apatite thermochronology" NSF-EAR-1949148, Total award: \$349,537. USC Award: \$311,203. 3/15/2020 – 2/28/2023.
- 2018 Postdoctoral Scholar Research Grant, Woods Hole Oceanographic Institution
- 2015 Jackson School of Geosciences Grant Matching Program: "Trace Element Systematics of Serpentinites", University of Texas at Austin
- 2015 Mineralogical Society of America's Mineralogy/Petrology Student Research Grant
- 2014 Jackson School of Geosciences Summer Analytical Fees Grant, University of Texas at Austin
- 2013 Geologic Society of America Students-in-Aid Research Grant: "Magnetite (U-Th)/He and (U-Th)/Ne geochronology: constraining serpentinization along magma-poor continental margins"
- 2013 Jackson School of Geosciences Grant Matching Program: "Magnetite (U-Th)/He and (U-Th)/Ne geochronology: constraining serpentinization along magma-poor continental margins", University of Texas at Austin

PUBLICATIONS

(*student author; ^postdoc author)

(peer-reviewed unless noted)

19. ^Pavia, F., **Cooperdock, E. H. G.**, ^de Obeso, J. C., Tissot, F. L. H., Kelemen, P. B., Sims, K. W. W., and F. Klein (2023). Uranium Isotopes in Serpentinites as Tracers of Weathering, Earth and Planetary Science Letters, 623, 118434.
<https://doi.org/10.1016/j.epsl.2023.118434>
18. Mallik, A., *Rebaza, A. M., Li, L., *Du, Y., Al Shams, A., Kapp, P., and **Cooperdock, E. H. G.** (2023). Metabasic rocks as important nitrogen carriers to forearc depths: Implications for deep nitrogen cycling. Geochimica et Cosmochimica Acta, 361, 265-275.
<https://doi.org/10.1016/j.gca.2023.10.007>
17. *Carrera, A., *Luckie, T., and **Cooperdock, E. H. G.**, (2023). Extreme underrepresentation of

first-generation college students in the geosciences: An intersectional issue. *Journal of Geoscience Education*, 1-12. <https://doi.org/10.1080/10899995.2023.2187233>

16. #**Cooperdock, E. H. G.**, #[^]Hofmann, F., *Tibbets, R. C., *Carrera, A., Takase, A., & Celestian, A. (2022). Rapid phase identification and characterization of apatite and zircon grains for geochronology using microCT. *Geochronology*, 4, 501–515. <https://doi.org/10.5194/gchron-4-501-2022>
#These authors contributed equally to this work.
15. Ketcham, R. A., Tremblay, M., Abbey, A., Baughman, J., **Cooperdock, E. H. G.**, Jepson, G., Murray, K., Odlum, M., Stanley, J. & Thurston, O. (2022). Report from the 17th International Conference on Thermochronology. *Earth and Space Science Open Archive*. April 11, 2022. <https://doi.org/10.1002/essoar.10511082.1> (Not peer-reviewed)
14. Cooke, M., Breitbart, M., **Cooperdock, E. H. G.**, Levin, N., Niemi, N., Bell, C., & Viskupic, K. (2021). First-year graduate courses foster inclusion. *Nature Geoscience*. <https://doi.org/10.1038/s41561-021-00800-6>
13. [^]Hofmann, F., **Cooperdock, E. H. G.**, West, A. J., *Hildebrandt, D., *Strößner, K., & Farley, K. A. (2021). Exposure dating of detrital magnetite using ³He enabled by microCT and calibration of the cosmogenic ³He production rate in magnetite. *Geochronology*, 3(2), 395–414. <https://doi.org/10.5194/gchron-3-395-2021>
12. Lazar, C., **Cooperdock, E. H. G.**, & *Seymour, B. H. T. (2021). A continental forearc serpentinite diapir with deep origins: Elemental signatures of slab-derived fluids and a mantle wedge protolith at New Idria, California. *Lithos*, 398–399, 106252. <https://doi.org/https://doi.org/10.1016/j.lithos.2021.106252>
11. **Cooperdock, E. H. G.**, [^]Chen, C. Y., Guevara, V. E., & Metcalf, J. R., (2021) Counteracting Systemic Bias in the Lab, Field, and Classroom. *AGU Advances*, 2, e2020AV000353. <https://doi.org/10.1029/2020AV000353>
10. Fulweiler R.W., Davies S.W., Biddle J.F., Burgin A.J., **Cooperdock E.H.G.**, Hanley T.C., Kenkel, C. D., Marcarelli, A. M., Matassa, C. M., Mayo, T. L.; Santiago-Vazquez, L. Z., Traylor-Knowles, N., and Ziegler, M. (2021) Rebuild the Academy: Supporting academic mothers during COVID-19 and beyond. *PLoS Biol* 19(3): e3001100. <https://doi.org/10.1371/journal.pbio.3001100>
9. **Cooperdock, E. H. G.**, [^]Labidi, J., *Dottin III, J. W. & [^]Keisling, B. (2020) Black Lives Matter: Promoting Diversity, Equity, and Inclusion in Geochemistry. *Elements* 16, 226–227. (Not peer-reviewed)
8. **Cooperdock, E.**, & Ault, A. (2020). Iron Oxide (U–Th)/He Thermochronology: New Perspectives on Faults, Fluids, and Heat. *Elements*, 16(5), 319–324. <https://doi.org/10.2138/gselements.16.5.319>
7. [^]**Cooperdock, E. H. G.**, Stockli, D. F., Kelemen, P. B., & *de Obeso, J. C. (2020). Timing of

magnetite growth associated with peridotite-hosted carbonate veins in the SE Samail ophiolite, Wadi fins, Oman. *Journal of Geophysical Research: Solid Earth*, 125, e2019JB018632. <https://doi.org/10.1029/2019JB018632>

6. **Cooperdock, E. H. G.**, Ketcham, R. A., & Stockli, D. F. (2019). Resolving the effects of 2-D versus 3-D grain measurements on apatite (U-Th)/He age data and reproducibility. *Geochronology*, 1(1), 17-41. <https://doi.org/10.5194/gchron-1-17-2019>
5. *Bernard, R. E. & **Cooperdock, E. H. G.** (2018), No progress on diversity in 40 years. *Nature Geoscience* 11, 292–295 (2018) doi:10.1038/s41561-018-0116-6. (*Not peer-reviewed*)
4. Schwarzenbach, E., Caddick, *M., Petroff, M., Gill, B., ***Cooperdock, E. H. G.**, & Barnes J. D (2018) Sulphur and carbon cycling in the subduction zone mélange. *Scientific Reports* 8:15517.
3. ***Cooperdock, E. H. G.**, & Stockli, D. F. (2018). Dating exhumed peridotite with spinel (U-Th)/He chronometry. *Earth Planetary Science Letters* 489: 219-227.
2. ***Cooperdock, E. H. G.**, *Raia, N. H., Barnes, J. D., Stockli, D. F. & Schwarzenbach, E. M. (2018) Tectonic origin of serpentinites on Syros, Greece: Geochemical signatures of seafloor serpentinitization preserved in a HP/LT subduction complex. *Lithos* 296: 352-364. **Undergraduate student mentee*
1. ***Cooperdock, E. H. G.**, & Stockli D. F. (2016) Unraveling alteration histories in serpentinites and associated ultramafic rocks with magnetite (U-Th)/He geochronology. *Geology* 44(11): 967-970. doi: 10.1130/G38587.1

CONFERENCE ABSTRACTS (née Hernandez Goldstein):

(*student author; ^postdoc author)

2023

51. *Rojas, A., **Cooperdock, E. H. G.**, Hofmann, F., and Lackey, J. S. “Long Term San Andreas Fault Offset Re-Examined Through a Multichronometer Study of a Key Piercing Point” (2023) AGU Annual Meeting, San Francisco, CA
50. *Rebaza, A M. M., Mallik, A., and **Cooperdock, E. H. G.** “The Fate of Ultramafic-Rich Mélanges in Cold to Hot Subduction Zones: Implications for Diapirism and Chemical Geodynamics” (2023) AGU Annual Meeting, San Francisco, CA
49. Bernard, R. E., and **Cooperdock, E. H. G.** “Demographic Data Deep Dive: New Insights and Approaches to Understanding Diversity in the Geosciences” (2023) AGU Annual Meeting, San Francisco, CA
48. Lazar, C., Tsujimori, T., and **Cooperdock, E. H. G.** “In situ boron isotope and chemical

analyses of the New Idria Serpentinite: evidence for a mantle wedge origin” (2023) AGU Annual Meeting, San Francisco, CA

47. Hofmann, F., **Cooperdock, E. H. G.**, and Regan, S. “Exploring microCT pre-screening as a tool to improve the accuracy and precision of $40\text{Ar}/39\text{Ar}$ ages.” (2023) AGU Annual Meeting, San Francisco, CA
46. *Carrera, A., **Cooperdock, E. H. G.**, Kay, S. M., and Bucholz, C. E. “Investigating Island Arc Exhumation Mechanisms – A Detailed Low-Temperature Thermochronologic Study of Adak and Kagalaska Islands, Aleutian Islands.” (2023) AGU Annual Meeting, San Francisco, CA
45. *Grabiec, J., **Cooperdock, E. H. G.**, and Platt, J. P. “Exploring the Shallow Exhumation History of the Southern California Borderland using Apatite, Rutile, and Zircon (U-Th)/He Thermochronology on Santa Catalina Island.” (2023) AGU Annual Meeting, San Francisco, CA
44. *Carrera, A., ^Luckie, T., and **Cooperdock, E. H. G.**, “Underrepresentation of first-generation college students in the geosciences - A diverse group to support in the post-Affirmative Action era.” (2023) AGU Annual Meeting, San Francisco, CA
43. *Cassady, V. C., Petryshyn, V. A., Bernhard, J. M., Hofmann, F., Berelson, W. M., **Cooperdock, E. H. G.**, and Corsetti, F. A., “Microbial and Mineral Impact on Texture in Incipient Dendrolitic Microbialites, Little Hot Creek, CA” (2023) GSA Meeting, Pittsburgh, PA, USA
42. Hofmann, F., **Cooperdock, E. H. G.**, and ^McDermott, R., “A survey of inclusion and Li concentrations in magnetite for (U-Th)/He and cosmogenic 3He dating” (2023) International Conference on Thermochronology, Riva del Garda, Italy
41. *Carrera, A., **Cooperdock, E. H. G.**, Kay, S. M., and Bucholz, C. E., “Investigating Island Arc Exhumation Mechanisms – A Detailed Low-Temperature Thermochronologic Study of Adak and Kagalaska Islands, Aleutian Islands” (2023) International Conference on Thermochronology, Riva del Garda, Italy
40. *Rojas, A., **Cooperdock, E. H. G.**, Hofmann, F., and Lackey, J. S., “Long-term San Andreas Fault offset re-examined through a key piercing point” (2023) International Conference on Thermochronology, Riva del Garda, Italy
39. Mallik, A., *Rebaza, A. M., Li, L., *Du, Y., Al Shams, A., Kapp, P., and **Cooperdock, E. H. G.**, “Nitrogen subduction efficiency via metabasic rocks: case study from a tectonic mélange in Central Tibet” (2023) Goldschmidt Meeting, Lyon, France
38. Condit, C. B., French, M. E., ^Hoover, W. F., *Lindquist, P. C., Guevara, V. E., Holt, A. F., and **Cooperdock, E. H. G.**, “Metamorphic fluid production, fluid pressures, and resultant slip behaviors at deep slow slip conditions during prograde subduction” (2023) Goldschmidt Meeting, Lyon, France
37. Kotowski, A. J., *Smit, H., *van Broekhoven, J., **Cooperdock, E. H. G.**, ^Tarling, M. S.,

Hellebrand, E., Kirkpatrick, J., King, H. E., and Plümper, O., “Low-temperature plate boundary serpentinization post-dates subduction initiation and facilitates obduction of an Appalachian ophiolite” (2023) Goldschmidt Meeting, Lyon, France

2022

36. Cassady, V. C., Petryshyn, V. A., Bernhard, J. M., Hofmann, F., Berelson, W. M., **Cooperdock, E. H. G.**, and Corsetti, F. A., “Examining Microbial Influence on Microbialite Texture Formation, Little Hot Creek, CA” (2022) AGU Meeting, Chicago, IL, USA
35. *Rebaza, A. M., Mallik, A., and **Cooperdock, E. H. G.**, “Phase equilibria study of ultramafic-rich and sediment-rich mélange lithologies in cold to hot subduction zones – Implications for Deep Nitrogen Cycling” (2022) AGU Meeting, Chicago, IL, USA
34. Condit, C. B., Myers, M., Warren, J. M., Holder, R., **Cooperdock, E. H. G.**, Rader, E., Guevara, V. E., Bauer, A., and *Mixon, E. E., “PetroNet: A petrology and high-temperature geochemistry community built within an antiracist and inclusive framework” (2022) GSA Annual Meeting, Denver, CO, USA
33. *Grabiec, J., **Cooperdock, E. H. G.**, Barnes, J. D., and Lackey, J. S. “Halogen distribution in continental arc plumbing systems: Sierra Nevada, California” (2022) GSA Annual Meeting, Denver, CO, USA
32. ^Hofmann, F., **Cooperdock, E. H. G.**, and ^McDermott, R., “Assessing the suitability of magnetite for (U-Th)/He and cosmogenic ³He exposure dating: a survey of inclusions and Li concentrations” (2022) GSA Annual Meeting, Denver, CO, USA
31. **Cooperdock, E. H. G.**, ^Hofmann, F., *Collins, R., *Carrera, A., Takase, A., and Celestian, A., “Rapid phase identification and characterization of apatite and zircon grains for geochronology using microCT” (2022) Goldschmidt Annual Meeting, Honolulu, HI, USA

2021

30. **Cooperdock, E. H. G.**, “Weaving Diversity, Equity, and Inclusion into Geoscience Education” (2021) Dorothy LaLonde Stout Lecture, AGU Annual Meeting, New Orleans, LA, USA (*Invited*)
29. Lazar, C., **Cooperdock, E. H. G.**, & *Seymour, B. H. T., “A continental forearc serpentinite diapir with deep origins: Elemental signatures of slab-derived fluids and a mantle wedge protolith at New Idria, California” (2021) AGU Annual Meeting, New Orleans, LA, USA
28. ^Pavia, F., **Cooperdock, E. H. G.**, ^de Obeso, J. C., Tissot, F. L. H., Kelemen, P. B., Sims, K. W. W., and Klein, F., “Uranium Isotopes in Serpentinites as Tracers of Redox Conditions and Weathering” (2021) AGU Annual Meeting, New Orleans, LA, USA
27. ^Hofmann, F., **Cooperdock, E. H. G.**, West, A. J., *Hildebrandt, D., *Strößner, K., & Farley, K. A., “MicroCT as a tool to improve the accuracy of cosmogenic ³He exposure dating in magnetite” (2021) AGU Annual Meeting, New Orleans, LA, USA

26. ^Hofmann, F., **Cooperdock, E. H. G.**, West, A. J., *Hildebrandt, D., *Strößner, K., & Farley, K. A., “Cosmogenic ^3He exposure dating of alluvial surfaces using detrital magnetite enabled by microCT scanning” (2021) Southern California Earthquake Center Annual Meeting, Virtual
25. *Luckie, T.; *Carrera A. and **Cooperdock, E. H. G.**, “First-Generation college students underrepresented in US Geoscience programs” (2021) GSA Annual Meeting, Portland, OR, USA
24. *Carrera A. and **Cooperdock, E. H. G.**, “A Preliminary Low-Temperature Exhumation Study of the Central Aleutian Islands, Alaska” (2021) 17th International Conference on Thermochronology, Santa Fe, NM, USA
23. *Collins R., **Cooperdock, E. H. G.**, and Casey, J. F. “Exploring the low-temperature thermal history of the Cambrian-Ordovician Bay of Islands ophiolite complex, Western Newfoundland using a multiple thermochronometer (U-Th/He) approach” (2021) 17th International Conference on Thermochronology, Santa Fe, NM, USA

2020

22. *Carrera A. and **Cooperdock, E. H. G.**, “Rising from the ocean: The uplift and evolution of the Aleutian Islands using (U-Th)/He Thermochronology (2020) SACNAS Annual Meeting, Virtual
21. **Cooperdock, E. H. G.**, Stockli, D. F., Kelemen, P. B., and de Obeso, J. C. “Tracking magnetite growth during fluid rock interactions with (U-Th)/He thermochronology” (2020) GSA Annual Meeting, Virtual (*Invited*)
20. Cooke, M., Bell, C. J., Breitbart, M., **Cooperdock, E. H. G.**, Levin, N., Marshall, A., Niemi, N. and Stevens, L. “Making the Hidden Curriculum Transparent through 1st year courses for Geosciences Graduate Students” (2020) GSA Annual Meeting, Virtual

2019

19. ^**Cooperdock, E. H. G.** and Smye A. J., “The Th/U Cycle in Serpentinites” (2019) AGU Fall Meeting, San Francisco (*Invited*)

2018

18. ^**Cooperdock, E. H. G.**, Stockli D. F., *Raia, N. H., and Barnes J. D. “Multi-stage history of fluids and faults in serpentinites on Syros, Greece” (2018) AGU Fall Meeting, Washington DC (*Invited*)
17. ^**Cooperdock E. H. G.** and ^Bernard, R. E. “Who has benefitted from outreach in the geosciences” (2018) AGU Fall Meeting, Washington DC
16. ^Ibarra D. E., ^Lau, K. V., ^Bernard, R. E. and ^**Cooperdock, E. H. G.** “Improvements in

gender parity but not representation among Asian American geoscience Ph.D. graduates” (2018) AGU Fall Meeting, Washington DC

15. **^Cooperdock, E. H. G.** and Stockli D. F., “Dating exhumed peridotite with spinel (U-Th)/He chronometry” (2018) 16th International Conference on ThermoChronology
14. **^Cooperdock, E. H. G.** and Stockli D. F., “Dating exhumed peridotite with spinel (U-Th)/He chronometry” (2018) Goldschmidt Conference, Boston, MA
13. **^Cooperdock, E. H. G.**, **^Bernard, R.**, Capaldi, T., Papendieck, A., “The impact of Science Y’all: A grassroots student blog” (2018) Goldschmidt Conference, Boston, MA
12. Schwarzenbach, E. M., Caddick, M. J., Petroff, M. Gill, B. C., ***Cooperdock, E.H.G.** and J. D. Barnes (2018) “Sources and speciation of Sulphur and carbon in the subduction zone mélange” EGU Galileo Conference

2016

11. ***Cooperdock, E. H. G.**, and Stockli, D. F. (2016) “Unraveling the alteration history of serpentinites and associated ultramafic rocks from the Kampos HPLT subduction complex, Syros, Greece” AGU Fall Meeting
10. ***Raia, N.**, ***Cooperdock, E. H. G.**, Barnes, J. D., Stockli, D. F., and Schwarzenbach, E. (2016) “Tectonic origin of serpentinites on Syros, Greece: Geochemical signatures of seafloor serpentinitization preserved in the HP/LT subduction complex” AGU Fall Meeting
**Undergraduate student mentee*
9. Cai, Y., Kelemen, P. B., Goldstein, S. L., Yogodzinski, G. M., Hemming, S. R., Rioux, M. E., and ***Cooperdock, E. H. G.** (2016) “Ages and geochemical comparison of coeval plutons and volcanics from the central and eastern Aleutian arc” AGU Fall Meeting
8. ***Cooperdock, E. H. G.**, and Stockli, D. F., (2016) “Unraveling the alteration history of serpentinites and associated ultramafic rocks from the Kampos HPLT subduction complex, Syros, Greece” 4th International Serpentine Days Conference

2010-2015

7. ***Cooperdock, E.**, Carter, M., and Lehnert, K. (2015) “The Internet of Samples in the Earth Sciences: Graduate students invested in the future of physical samples” Geological Society of America, Abstracts with Programs, Vol. 47, No. 7, p.819
6. ***Hernandez Goldstein, E.**, Stockli, D., Ketcham, R. & ***Seman, S.**, (2014) “Improved

Methodology for Magnetite (U-Th)/He Dating of Serpentinites” 14th International Conference on Thermochronology

5. ***Hernandez Goldstein, E.**, Stockli, D., Ketcham, R., & *Seman, S., (2014) “U-Th/He Dating of Magnetites in Serpentinites” Goldschmidt Abstracts, 2014 974
4. ***Hernandez Goldstein, E.**, Stockli, D. and Ketcham, R., (2013) “Vetting Unconventional Minerals for Thermochronology” Geological Society of America, Abstracts with Programs, Vol. 45, No. 7.
3. ***Hernandez Goldstein, E.**, Stockli, D. and Ketcham, R., (2013) “Magnetite (U-Th)/He Geochronology: Advancements in Sample Preparation and Application to Date Serpentinites” Geological Society of America, Abstracts with Programs, Vol. 45, No. 3.
2. ***Goldstein, E. H.**, *Sauer, K., *Harwood, J., Mogk, D., Henry, D., Mueller, P., and Foster, D., (2011) “Evolution of the Precambrian rocks of Yellowstone National Park: Metasedimentary Rocks” Geological Society of America, Abstracts with Programs, Vol. 43, No. 4, p. 61.
1. *Corbin, N., *Walden, J., Bigoldi T., Thompson, J., Stockli, D., ***Hernandez Goldstein, E.**, *Biel, S., *Fry, T., *Wiese, S., and *Weiland, C., (2010) “Late Miocene to Pliocene left-lateral reactivation of Middle Miocene right-lateral faults in the Mina deflection- a detailed stratigraphic, structural, fault-kinematic, and geochronological investigation in the Coaldale Junction area, Walker Lane, NV” Geological Society of America, Abstracts with Programs, Vol. 42, No. 5, p. 133.

CONFERENCE PRESENTATIONS (oral unless noted as †poster):

2023

- Conference on Rock Magnetism, Institute for Rock Magnetism, Minneapolis, MN (**Invited Keynote**) “*Dating magnetite in ultramafic systems: a tale of tears, trace elements, and unexpected ages*”

2022

- Goldschmidt Annual Conference, Honolulu, HI
† “*Rapid phase identification and characterization of apatite and zircon grains for geochronology using microCT*”

2021

- AGU Annual Meeting, New Orleans & Virtual (**Stout Lecture**) “*Weaving Diversity, Equity, and Inclusion in Geoscience Education*”

“A continental forearc serpentinite diapir with deep origins: Elemental signatures of slab-derived fluids and a mantle wedge protolith at New Idria, California”

“Uranium Isotopes in Serpentinites as Tracers of Redox Conditions and Weathering”

2020

- GSA Annual Meeting, (Virtual)
(Invited) “Tracking magnetite growth during fluid rock interactions with (U-Th)/He thermochronology”

2019

- AGU Fall Meeting, San Francisco
(Invited) “The Th/U Cycle in Serpentinites”

2018

- AGU Fall Meeting, Washington DC
(Invited) “Multi-stage history of fluids and faults in serpentinites on Syros, Greece”

†“Who has benefitted from outreach in the geosciences”

- 16th International Conference on Thermochronology, Quendlinburg, Germany
†“Spinel (U-Th)/He thermochronology: Dating mantle exhumation by tectonic and volcanic processes”
- Goldschmidt Annual Conference, Boston, MA
“Spinel (U-Th)/He chronometry: A novel approach to date mantle exhumation”

“The impact of Science Y’all: A grassroots student blog”

2017

- Tomography for Scientific Advancement Meeting (ToScA) North America, Austin, TX
“Improved mineral grain screening and measurement using X-Ray Computed Tomography: Applications to (U-Th)/He chronology”

2016

- 4th International Serpentine Days Conference, Sete, France
“Unraveling alteration histories of serpentinites and associated ultramafic rocks with magnetite (U-Th)/He geochronology”

2014

- Goldschmidt Annual Conference, Sacramento, CA
“(U-Th)/He Dating of Magnetites in Serpentinites”
- 14th International Conference on Thermochronology, Chamonix, France

†“Improved Methodology for Magnetite (U-Th)/He Dating of Serpentinites”

2013

- Geological Society of America Annual Meeting, Denver, CO
†“Vetting Unconventional Minerals for Thermochronology”
- Geological Society of America South-Central Annual Meeting, Austin, TX
†“Magnetite (U-Th)/He Geochronology: Advancements in Sample Preparation and Application to Date Serpentinites”

INSTITUTION PRESENTATIONS (oral unless noted as †poster):

2023

- **Yale University**, Department of Earth and Planetary Sciences weekly colloquium and Diversity, Equity, and Inclusion bonus seminar (**Invited, 2 talks**)
- **Brown University**, Department of Earth, Environmental and Planetary Science colloquium
- **Purdue University**, Department of Earth, Atmospheric, and Planetary Science weekly colloquium and Diversity, Equity, and Inclusion bonus seminar (**Invited, 2 talks**)
- **Stony Brook University**, Department of Geoscience weekly colloquium (**Invited**)
- **Rigaku Micro Computed Tomography Workshop**, University of Southern California (**Invited talk**)
- **University of Arizona’s 51st GeoDaze**, Department of Geosciences (**Invited Keynote**)
- **Stanford University**, School of Earth, Energy, and Environmental Sciences, Geological Sciences weekly colloquium and Diversity, Equity, and Inclusion bonus seminar (**Invited, 2 talks**)
- **University of Southern California**, Department of Earth Sciences weekly colloquium
- **43rd Annual Woodford-Eckis Lecture and Pomona Centennial Celebration**, Pomona College Geology Department, (**Invited Keynote, 2 talks**)
- **University of California Santa Barbara**, Department of Earth Sciences weekly colloquium and Diversity, Equity, and Inclusion bonus seminar (**Invited, 2 talks**)

2022

- **University of Wisconsin Madison**, Department of Geoscience weekly colloquium and Diversity, Equity, and Inclusion bonus seminar (**Invited, 2 talks**)
- **American Natural History Museum**, Earth and Planetary Sciences Department weekly seminar (**Invited**)
- **University of Nevada Reno**, Department of Geological Sciences and Engineering colloquium and DEI award (**Invited**)
- **University of Illinois-Champaign Urbana**, Department of Geology weekly seminar (**Invited**)
- **Duke University**, Nicholas School of the Environment Weekly Seminar (**Invited**)

- **University of Southern California**, Department of Earth Sciences Lithospheric Dynamics Seminar

2021

- **DIG: Diversity and Inclusion in Geosciences**, multi-institution DEI speaker series
- **National Science Foundation**, Geosciences Directorate-wide Special Diversity, Equity and Inclusion Seminar (*Invited*)
- **Louisiana State University**, Geology and Geophysics Department Seminar (*Invited*)
- **Utah State University**, Department of Geosciences Seminar and Diversity, Equity, and Inclusion bonus seminar (*Invited, 2 talks*)
- **University of Vermont**, Department of Geology (*Invited for DEI panel*)

2020

- **UNLV**, Department of Geoscience Department Seminar (*Invited*)
- **University of Chicago**, Geophysical Sciences Department Seminar and Equity, Diversity, and Inclusion Seminar (*Invited, 2 talks*)
- **UC Santa Barbara** (postponed due to COVID) (*Invited*)
- **University of Minnesota**, Earth and Environmental Sciences Department Seminar and Hard Rock Seminar (*Invited, 2 talks*)
- **University of Southern California**, Department of Earth Sciences, Lithosphere Dynamics Seminar

2019

- **UCSD**, Scripps Institution of Oceanography Department Seminar (*Invited*)
- **UCLA**, Earth, Planetary and Space Sciences Department Seminar (*Invited*)
- **CSU Fullerton**, Department of Geological Sciences Department Seminar (*Invited*)

2018

- **University of Rhode Island**, Department of Geosciences Department Seminar (*Invited*)
- **University of Delaware**, Department of Geological Sciences Department Seminar (*Invited*)
- **Brown University**, Department of Earth, Environmental and Planetary Sciences, Lunch Bunch Seminar (*Invited*)

2017

- **Columbia University**, Lamont Doherty Earth Observatory, Geochemistry Seminar (*Invited*)
- **Woods Hole Oceanographic Institution**, Marine Chemistry & Geochemistry Seminar (*Invited*)
- **The University of Texas at Austin**, Department of Geological Sciences, Petrology, Geochemistry, Structure and Tectonics Seminar
- **University of Houston**, Geochemistry Seminar

- **Rice University**, Geochemistry Seminar
- **University of Texas at Dallas**, GeoClub Meeting and UTD Friday Seminar
- **The University of Texas at Austin**, Jackson School Research Symposium[†]

2011- 2016

- **Exxon-Mobil**, Research and Development team presentation, Houston, TX (2015)
- **The University of Texas at Austin**, Department of Geological Sciences, Petrology, Geochemistry, Structure and Tectonics Seminar (2014)
- **Columbia University**, Lamont Doherty Earth Observatory, Hot Topics Seminar (2014)
- **The University of Texas at Austin**, Department of Geological Sciences, Petrology, Geochemistry, Structure and Tectonics Seminar (2014)
- **The University of Texas at Austin**, Jackson School Research Symposium[†] (2014)
- **Exxon-Mobil**, Research & Development team, Houston, TX (2013)
- **The University of Texas at Austin**, Jackson School Research Symposium[†] (2013)
- **Columbia University**, Department of Earth and Environmental Sciences, Noon Balloon Seminar (2011)

TEACHING & GEOSCIENCE EDUCATION EXPERIENCE

2023

- **Instructor**, GEOL 563 Geochemistry Seminar, University of Southern California
- **Co-Instructor**, GEOL 316 Petrology, University of Southern California

2022

- **Instructor**, GEOL 593 Practicum in Teaching Liberal Arts, University of Southern California
(*Instructor rating by students: 3.9/4.0*)
- **Instructor**, GEOL 315 Minerals and Earth System, University of Southern California
(*Instructor rating by students: 3.9/4.0*)
- **Co-Instructor**, GEOL 460 Geochemistry, University of Southern California
(*Instructor rating by students: 3.8/4.0*)

2021

- **Instructor**, GEOL 563 Geochemistry Seminar, University of Southern California
(*Instructor rating by students: 3.9/4.0*)
- **Instructor**, GEOL 599 Diversity, Equity, and Inclusion in STEM, University of Southern California
(*Instructor rating by students: 3.9/4.0*)

2020

- **Instructor**, GEOL 593 Practicum in Teaching the Liberal Arts, University of Southern California
(*Instructor rating by students: 4.0/4.0*)

- Early Career Faculty Geoscience Workshop: Accepted, but could not attend due to COVID.

2019

- 6-week CET New Faculty Institute, University of Southern California (interrupted by COVID)
- **Co-Instructor**, GEOL 315 Minerals and Earth Systems, University of Southern California (*Instructor rating by students: 3.8/4.0*), *Co-instructor with Doug Hammond*
- **Instructor**, GEOL 505, Introduction to Graduate Studies, University of Southern California (*Instructor rating by students: 3.9/4.0*)

2016

- **Teaching Assistant**, Earth Materials, The University of Texas at Austin (*Instructor rating by students: 4.7/5.0*)
- Mentor to Undergraduate Honors Student, The University of Texas at Austin
Mentor to Natalie Raia. Final products included a poster at AGU 2016 and a publication submitted to Lithos.

2015

- Mentor, Students Raising Students Program, The University of Texas at Austin
Mentor to Allison Berti, undergraduate geophysics major

2014

- GK-12 Associate, The University of Texas at Austin
Presented to high school classrooms, lead department tours for K-12 students
- Co-coordinator for UTChron Undergraduate Summer Minority Intern Program
Organized and mentored undergraduates Claudia Roig (University of Puerto Rico), Doris Rivera-Santiago (University of Puerto Rico) and Kendall Salinas (University of Texas) in (U-Th)/He related research projects at University of Texas at Austin.
- **Teaching Assistant**, Honors Undergraduate Field Trip to the Colorado Plateau, The University of Texas at Austin

2013

- Participant, On the Cutting-Edge Workshop: Preparing for an Academic Career in Geosciences, Boulder, CO

2010

- NSF Research Experience for Undergraduates: Precambrian Rocks of Yellowstone National Park
The results of the REU were published in by Mogk et al. (2012) in Yellowstone Science
- **Teaching Assistant**, Solid Earth Systems, Columbia University (2 semesters)

PROFESSIONAL SERVICE/ACTIVITIES

2023

Brown Service

- LunaSCOPE DEI committee member

International Service

- Panelist, NSF EAR-Tectonics

2022

USC Service

- Department of Earth Sciences Admissions Committee
- Department of Earth Sciences Faculty Search Committee
- Co-host of informal graduate student professionalization series (lunchtime Q&A discussion on topics ranging from “how to find a postdoc” to “how to develop your research compass”)
- Invited Guest Speaker at the 2022 Wrigley Summer Fellows Leadership Dinner

International Service

- Convener, Goldschmidt Annual Meeting Conference Session
- Panelist, AAPG Women’s Network Panel: Perceptions of DEI Work in Academia and Industry Careers (Virtual)
- Discussion Leader and Attendee, Second National Conference: Justice in Geoscience, AGU Chapman Conference (Virtual)
- Panelist, NSF OCE-Marine Geology and Geophysics Spring Panel

2021

USC Service

- Department of Earth Sciences Admissions Committee
- Department of Earth Sciences Faculty Search Committee
- Department of Earth Sciences Space Committee
- Co-host of informal graduate student professionalization series (lunchtime Q&A discussion on topics ranging from “how to find a postdoc” to “how to develop your research compass”)

International Service

- Panelist, Geochemical Society Town Hall, COVID Impacts on Geochemistry
- Organizing committee for 17th International Thermochronology Conference (delayed due to COVID)

2020

USC Service

- Department of Earth Sciences Admissions Committee
- Department of Earth Sciences Faculty Search Committee
- Organized USC-wide virtual film screening of "*Picture A Scientist*" (over 300 participants); organized and moderated post-screening panel discussion (over 80 participants)
- Faculty advisor to Department of Earth Science Sigma Gamma Epsilon Undergraduate Club

International Service

- Founding Member, PetroNet (Young Petrologist and Geochemists)
- URGE Pod Participant, PetroNet
- Member, Geochemical Society, Diversity Equity and Inclusion Committee
- Panelist, NSF EAR-Tectonics Fall Panel
- Panelist, Geochemical Society International Town Hall: Black Lives Matter
- Organizing committee for 17th International Thermochronology Conference (delayed due to COVID)
- Invited guest, University of Chicago Department of Earth Sciences discussion on race and diversity

2019

USC Service

- Department of Earth Sciences Admissions Committee
- Department of Earth Sciences Merit Review Committee

International Service

- Guest Editor, *Elements Magazine* issue on "Noble Gas Thermochronology"
- Co-convener, AGU Session "Hydrothermal Systems in 4-D"
- Organizing committee for 17th International Thermochronology Conference (delayed due to COVID)

2018

- Leadership, 500 Women Scientists of Cape Cod
- Member, Diversity Action Committee, Woods Hole, MA
- Co-convener, 16th International Conference on Thermochronology

2017

- Co-convener, Goldschmidt Session "Innovations and Advances in Thermochronology"

2016

- Co-convener, AGU Session “4 Billion Years of Serpentinization on Earth and Beyond”
- Co-founder & Editor, *Science, Y'all!* the official student science blog of the Jackson School of Geosciences at The University of Texas at Austin
- Coordinator, Petrology, Geochemistry, Structure and Tectonics Seminar, The University of Texas at Austin
- Panelist, Jackson School of Geosciences 10th Anniversary Celebration and Research Symposium, The University of Texas at Austin

2015

- Graduate Student Representative, Jackson School Dean’s Evaluation Committee, The University of Texas at Austin
- Planning Committee Member, iSamples EarthCube Research Coordination Workshop, Austin, Texas

2014

- Secretary, Graduate Student Executive Committee, The University of Texas at Austin
- Lead Coordinator, Jackson School Poster Symposium, The University of Texas at Austin

2013

- Vice President, Graduate Student Executive Committee, The University of Texas at Austin
- Student Volunteer, South-Central Annual Meeting, Geological Society of America

2012

- Student-Faculty Liaison, Graduate Student Executive Committee, The University of Texas at Austin
- Participant, Pyrenees Workshop 2012, St. Martin d’Arrossa, France

2011

- Research Assistant, International Drilling Program Dead Sea Project, Dead Sea, Israel

2010

- Student Volunteer, Annual Meeting, Geological Society of America

2009

- Participant, Geoinformatics Workshop, Geological Society of America
- Research Assistant, MEDCOR Research Cruise, Messina, Sicily

ADVISING & MENTORING

Brown University (2023-present)

Current:

César Bucheli Olaya, Ph.D. candidate, Advisor

Alexia Rojas, Ph.D. candidate, Advisor

**Ford Foundation Fellowship Honorable Mention*

Anahi Carrera*, Ph.D. candidate, Advisor

**Ford Foundation Fellowship Honorable Mention*

University of Southern California (2019 - 2023) (**bold** = direct advisor)

Current:

Justine Grabiec, Ph.D. candidate, Advisor

Ryley Collins, Ph.D. candidate, Advisor

Former:

Ailani Bonilla, Undergraduate, Directed research

Renato Vasquez, Undergraduate, Directed research

Lucas Valliere, Undergraduate, Work-study

Breken Hummel, Undergraduate, Work-study

Florian Hofmann, Postdoc, Mentor

Sabreen Lyman, Undergraduate, Directed research, Work-study

Luke Gordon, Undergraduate, Work-study

Others:

Ema Armstrong, Ph.D. candidate at Utah State, committee member

Kathleen Grant, Ph.D. candidate, Qualifying exam committee member

Alexis Floback, Ph.D. candidate, Qualifying exam committee member

Naomi Rodgers, Ph.D. candidate, Qualifying exam committee member

Hengdi Li, Ph.D. candidate, Qualifying exam committee member

Cullen Schleland, Ph.D. candidate, Qualifying exam committee member

Tarryn Cawood, Ph.D. candidate, Defense committee member

University of Texas at Austin (2012-2017)

Natalie Raia, Undergraduate Honors Thesis, resulted in 1 publication. Raia is now a PhD candidate in geosciences at UMN.

REFEREE

Nature Communications, Chemical Geology, EPSL, GCA, Lithos, National Science Foundation, German Research Foundation, Advances in Geoscience, Bulletin of the American Meteorological Society, Geochronology

PROFESSIONAL SOCIETIES

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