

A&S ACADEMIC PERSONNEL CURRICULUM VITAE

NAME

Kenneth W. W. Sims

ADDRESS

Department of Geology and Geophysics
Wyoming High Precision Isotope Laboratory
University of Wyoming
Laramie, Wyoming

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EDUCATION

Ph.D., Earth and Planetary Sciences, University of California, Berkeley, 1995
Title: *Magma Genesis in the Earth's Mantle*
Thesis Advisor: Donald J. DePaolo

M.Sc., Institute of Meteoritics, Earth and Planetary Sciences, U. of New Mexico, 1989
Title: *Chemical Fractionation During Formation of the Earth's Core and Continental Crust*
Thesis Advisors: Klaus Keil, Horton Newsom

B.A., Colorado College, Cum Laude, with Honors in Geology, 1986

ACADEMIC POSITIONS

University of Wyoming, Laramie, Wyoming

Associate Department Head, Department of Geology and Geophysics (2012-present)
Professor, Department of Geology and Geophysics (2014-present)
Associate Professor, Department of Geology and Geophysics (2009–2014)

Woods Hole Oceanographic Institution (WHOI), Woods Hole, Massachusetts

Associate Scientist with Tenure, Department of Geology and Geophysics (2007–2009)
Associate Scientist, Department of Geology and Geophysics (2002–2007)
Assistant Scientist, Department of Geology and Geophysics (1997–2002)

Institut Universitaire Européen de la Mer (IUEM), Brest, France

Visiting CNRS Fellow (2002)

Los Alamos National Laboratory, Los Alamos, New Mexico, University of California.

Guest Scientist, Isotope and Nuclear Chemistry Group (1996–2002)
Student Researcher, Isotope and Nuclear Chemistry Group (1987–1996)

OTHER POSITIONS

Contractual Mountain Guide, for NSF-funded research parties. NASA, and private clients in Antarctica (7 Austral summer seasons from 1988-97), Cordillera Blanca, Peru (1981, 1999), Alaska Range, AK (1984, 1989) and volcanoes in Mexico (1983)

Wilderness Instructor, Colorado Outward Bound School, Colorado Springs, CO (1984-1986)

Project Director (1980-1982) and **Wilderness Instructor, Santa Fe Mountain Center**, Santa Fe, NM (seasonally 1980-1985)

Climbing Guide/Instructor (1978, 1979) and **Head Guide** (1980), **Eastern Mountain Sports Climbing School**, North Conway, NH (1978-1980)

Climbing Guide/Instructor, Vertical World Climbing School and Guide Service, Colorado Springs, CO (1976-1978)

CURRENT JOB DESCRIPTION

40 % Teaching 50 % Research 5 % Service 0 % Admin 5 % Advising

TEACHING

University of Wyoming

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2015	Spring	4900 - Principles of Geochemistry	4	18
2015	Spring	4820 – Capstone	3	20
2015	Spring	4200/5200 Uranium	2	5
2015	Spring	4200/5200- Genesis, Impact and Predictability of Yellowstone Volcanic System	2	17

2014	Spring	4200 - Basin and Range Volcanism	2	16
2014	Spring	5050 - Isotope Geology	3	7

2013	Spring	1100 - Physical Geology	4	208
2013	Spring	4900 - Principles of Geochemistry	4	22
2013	Spring	4200 - Distinguished Lecture Series	1	34
2012	Fall	4200 - Isotopes and Earth's Climate	2	8
2012	Fall	4200 - Distinguished Lecture Series	1	49

2012	Spring	5050 - Isotope Geology	3	15
2012	Spring	4200 - Distinguished Lecture Series	1	54
2011	Fall	4200- Genesis, Impact and Predictability of Yellowstone Volcanic System	2	15
2011	Fall	4200 - Non-Traditional Stable Isotopes	2	9
2011	Fall	4200 - Distinguished Lecture Series	1	51

2011	Spring	1100 -Physical Geology	4	195
2011	Spring	4200- Stable Isotopes	1	15
2011	Spring	4200 - Distinguished Lecture Series	1	41
2010	Fall	4200 - Basin and Range Volcanism	2	21
2010	Fall	4200 - Distinguished Lecture Series	1	51

2010	Spring	5050 - Isotope Geology	3	10
2010	Spring	4200 – Planetary Volcanology	2	11
2009	Fall	4200- Genesis, Impact and Predictability of Yellowstone Volcanic System	2	14

WHOI/MIT Joint Program

Classes and Seminars:

Solid Earth Geochemistry (2003, 2005, 2007)
Introduction to Isotope Chemistry (2003-2009)
Introduction to Marine Geology and Geophysics (2002-2009)
WHOI Geochemistry Seminar (1996-2003)

PUBLICATIONS IN PROGRESS *student papers and ** post doctoral researcher papers

In Preparation:

I have several manuscripts in preparation at various stages of completion. However, I feel that this section of the Arts and Science Vitae, “in prep” manuscripts, is not necessary for assessing my academic accomplishments.

In Review:

Park, S-H., C. H. Langmuir, S. Scott, K. W.W. Sims, J. Lin, S-S Kim, D. Hahm, P. J. Michael, “*Large-Scale Plume source beneath Australian-Antarctic Ridge changes the boundary between Pacific and Indian Mantle.*” (Submitted to Nature, reviewed with revisions requested).

*Arendt, C.A., S.M. Aciego, K.W.W. Sims, and S.M. Aarons. “*Uranium-series isotopes confirm prolonged residence time of subglacial water.*” (Submitted to Earth Planetary Science Letters).

*Mervine, E.M., K.W.W. Sims, S.E. Humphris, and P.B. Kelemen. “*The applications and limitations of U-Th disequilibria systematics for determining rates of peridotite carbonation in the Samail Ophiolite, Sultanate of Oman.*” (Submitted to Quaternary Research).

PUBLISHED WORKS *student papers and ** post doctoral researcher papers

Refereed Journal Articles:

63) Aciego, S.M., S.A. Aarons, K. W.W. Sims (2015, accepted). ” *The Uranium-isotopic composition of Saharan duct collected over the central Atlantic Ocean.*” (Accepted in Aeolian Research).

62) Yogodzinski, G.M., S. T. Brown, P. B. Kelemen, J. D. Vervoort, M. Portnyagin, K. W.W. Sims, K. Hoernle, B. Jicha, R. Werner (2015, accepted). “*The Role of Subducted Basalt in the Source of Island Arc Magmas: Evidence from Seafloor Lavas of the Western Aleutians.*” (Accepted in Journal of Petrology).

61) **Reubi, O. K.W.W. Sims, N. Varley, M. Reagan, and J. Eikenberg (2015, accepted) Timescales of degassing and conduit dynamics inferred from 210Pb-226Ra disequilibria in Volcan de Colima 1998-2010 andesitic magmas” (Accepted in Royal Society Special Volume on Chemical, Physical and Temporal Evolution of Magmatic Systems eds Jon Blundy et al.).

60) *Arendt C.A., S.M. Aciego, K.W.W Sims, M. Ribbins (2015, in print) “Sequential Separation of Uranium, Hafnium and Neodymium from Natural Waters Concentrated by Iron Co-precipitation” Geostandards and Geoanalytical Research doi: 10.1111/j.1751-908X.2014.00322.x accepted, corrected proof on line).

59) *Anderson, M.B., T. Elliott, H. Freymouth, K.W.W. Sims, Y Niu, K.A. Kelly (2015) “*The Terrestrial Uranium Isotope Cycle*”, Nature, 517, 356-359, doi: 10.1038/nature14062.

- 58) Kaszuba, J.P., K.W.W. Sims, A.R. Pluda (2014). “*Aqueous geochemistry of the Thermopolis Hydrothermal System, southern Bighorn Basin, Wyoming.*” *Rocky Mountain Geology*, 49, 1, 1-16. doi: 10.2113/gsrocky.49.1.1.
- 57) **Reubi, O., K.W.W. Sims, and B. Bourdon (2014). “ *^{238}U - ^{230}Th equilibrium in arc magmas and implications for the time scales of mantle metasomatism.*” *Earth and Planetary Science Letters*, 391, 146-158, doi.org/10.1016/j.epsl.2014.01.054.
- 56) *Elkins, L.J., K.W.W. Sims, J. Prytulak, J. Blichert-Toft, T. Elliott, J. Blusztajn, S. Fretzdorff, M. Reagan, K. Haase, S. Humphris, and J.-G. Schilling (2014). “*Melt generation beneath Arctic Ridges: Implications from measurements of U decay series disequilibria in the Mohns, Knipovich, and Gakkel Ridges.*” *Geochimica et Cosmochimica Acta*, 127, 140-170, doi.org/10.1016/j.gca.2013.11.031.
- 55) *Mervine, E.M., S.E. Humphris, K.W.W. Sims, P.B. Kelemen, and W.J. Jenkins (2014). “*Carbonation Rates of Peridotite in the Samail Ophiolite, Sultanate of Oman Constrained Through ^{14}C Dating and Stable Carbon Isotopes.*” *Geochimica et Cosmochimica Acta*, 126, 371-397; doi.org/10.1016/j.gca.2013.11.007.
- 54) Klein, E.M., S.M. White, A. Nunnery, J.L. Mason, D. Wanless, M.R. Perfit, C.L. Waters, K.W.W. Sims, D.J. Fornari, A.J. Zaino, and W.I. Ridley (2013). “*Seafloor photo-geology and sonar terrain modeling at the 9°N overlapping spreading center, East Pacific Rise.*” *Geochemistry, Geophysics, Geosystems*, 14, 12, doi: 10.1002/ggge.20287.
- 53) Sims, K.W.W., J. MacLennan, J. Blichert-Toft, E.M. Mervine, J. Bluzstajn, and K. Grönvold (2013). “*Short length scale mantle heterogeneity beneath Iceland probed by glacial modulation of melting.*” *Earth and Planetary Science Letters*, 379, 146-157, doi.org/10.1016/j.epsl.2013.07.027.
- 52) Lane-Smith, D. and K.W.W. Sims (2013). “*The effect of CO_2 on the measurement of ^{220}Rn and ^{222}Rn , with instruments utilizing electrostatic precipitation.*” *Acta Geophysica*, 61, 4, 822-830 (Special volume on Geo-Hazards; Guest editor: Rakesh Chand Ramola) doi: 10.2478/s11600-013-0107-3.
- 51) *Waters, C.L., K.W.W. Sims, S.A. Soule, J. Blichert-Toft, N.W. Dunbar, T. Plank, R.A. Sohn, and M.A. Tivey (2013). “*Recent Volcanic Accretion at 9-10°N East Pacific Rise as Resolved by Combined Geochemical and Geological Observations.*” *Geochemistry, Geophysics, Geosystems*, 14. doi: 10.1002/ggge.20134.
- 50) *Waters, C.L., K.W.W. Sims, E.M. Klein, S.M. White, M.K. Reagan, and G. Girard (2013). “*Sill to Surface: Linking Young Off-Axis Volcanism with Subsurface Melt at the Overlapping Spreading Center at 9°03'N East Pacific Rise.*” *Earth and Planetary Science Letters*, 369-370, 59-70. doi.org/10.1016/j.epsl.2013.03.006.
- 49) **Prytulak, J., S.G. Nielsen, D.A. Ionov, A.N. Halliday, J. Harvey, K.A. Kelley, Y.L. Niu, D.W. Peate, K. Shimizu, and K.W.W. Sims (2013). “*The Stable Vanadium Isotope Composition of the Mantle and Mafic Lavas.*” *Earth and Planetary Science Letters*, 365, 177-

189. doi: 10.1016/j.epsl.2013.01.010.

48) Sims, K.W.W., S. Pichat, M.K. Reagan, P.R. Kyle, H. Dulaiova, N. Dunbar, J. Prytulak, G. Sawyer, G. Layne, J. Blichert-Toft, P.J. Gauthier, M.A. Charrette, and T.R. Elliott (2013). “*On the timescales of magma genesis, melt evolution, crystal growth rates and magma degassing in the Erebus volcano magmatic system using the ^{238}U , ^{235}U - and ^{232}Th -decay series.*” *Journal of Petrology*, 54, 2, 235-271. doi: 10.1093/petrology/egs068.

47) **Dulaiova, H., K.W.W. Sims, and M.A. Charette (2013). “*A new method for the determination of low-level actinium-227 in geological samples.*” *Journal of RadioAnalytical and Nuclear Chemistry*, 296, 279-283. doi:10.1007/s10967-012-2140-0.)

46) **Garrison, J.M., M.K. Reagan, and K.W.W. Sims (2012). “*Dacite formation at Ilopango Caldera, El Salvador: U-series disequilibrium and implications for petrogenetic processes and magma storage time.*” *Geochemistry, Geophysics, Geosystems*, 13. doi:10.1029/2012GC004107.

45) Mather, T.A., M.L.I. Witt, D.M. Pyle, B.M. Quayle, A. Aiuppa, E. Bagnato, R.S. Martin, K.W.W. Sims, M. Edmonds, A.J. Sutton, and E. Ilyinskaya (2012). “*Halogens, mercury and other trace metal emissions from the 2008 summit eruption of Kīlauea volcano, Hawaii.*” *Geochimica et Cosmochimica Acta*, 83, 292-323. doi: 10.1016/j.gca.2011.11.029.

44) *Elkins, L.J., K.W.W. Sims, J. Prytulak, T. Elliott, N. Mattielli, J. Blichert-Toft, J. Blusztajn, C. Devey, D. Mertz, J.-G. Schilling, and M. Murrell (2011). “*Understanding melt generation beneath the slow-spreading Kolbeinsey Ridge using ^{238}U , ^{230}Th , and ^{231}Pa excesses.*” *Geochimica et Cosmochimica Acta*, 75, 21, 6300-6329. doi:10.1016/j.gca.2011.08.020.

43) *Head, E.M., A.M. Shaw, P.J. Wallace, K.W.W. Sims, and S.A. Carn (2011). “*Insight into volatile behavior at Nyamuragira volcano (D.R. Congo, Africa) through olivine-hosted melt inclusions.*” *Geochemistry, Geophysics, Geosystems*, 12, Q0AB11. doi:10.1029/2011GC003699.

42) *Owens, S.A., K.O. Buesseler, K.W.W. Sims (2011). “*Re-evaluating the ^{238}U -salinity relationship in seawater: Implications for the ^{238}U - ^{234}Th disequilibrium method.*” *Marine Chemistry*, 127, 1-4, 20, Pages 31-39. doi:10.1016/j.marchem.2011.07.005.

41) *Waters, C.L., K.W.W. Sims, M.R. Perfit, J. Blichert-Toft, and J. Blusztajn (2011). “*Linking volcanic resurfacing and magmatic cycling: evidence from isotopically enriched basalts at 9-10°N East Pacific Rise.*” *Journal of Petrology*, 52, 3, 565-602. doi:10.1093/petrology/egq091.

40) *Standish, J.J. and K.W.W. Sims (2010). “*Young Volcanism and Rift Valley Construction at an Ultraslow Spreading Ridge.*” *Nature Geoscience*, 3, 4, 286-292. doi: 10.1038/NGEO824.

39) *Aciego, S.M., F. Jourdan, D.J. DePaolo, B.M. Kennedy, P.R. Renne, and K.W.W. Sims (2010). “*Combined U-Th/He and $^{40}\text{Ar}/^{39}\text{Ar}$ Geochronology of Post-shield Lavas from the*

Mauna Kea and Kohala volcanoes, Hawaii.” *Geochimica et Cosmochimica Acta*, 74, 1620-1635. doi:10.1016/j.gca.2009.11.020.

38) Cooper, K.M., J.M. Eiler, K.W.W. Sims, and C.H. Langmuir (2009). “*Distribution of recycled crust within the upper mantle: Insights from the oxygen isotope composition of MORB from the Australian-Antarctic Discordance.*” *Geochemistry, Geophysics and Geosystems*, 10, 12, Q12004. doi:10.1029/2009GC002728.

37) *Chakrabarti, R., K.W.W. Sims; A.R. Basu; M. Reagan; and J. Durieux (2009). “*Timescales of Magmatic Processes and Eruption Ages of the Nyiragongo volcanics from ^{238}U - ^{230}Th - ^{226}Ra - ^{210}Pb disequilibria.*” *Earth and Planetary Science Letters*, 288, 149–157. doi:10.1016/j.epsl.2009.09.017.

36) *Kelly, P.J., P.R. Kyle, N.W. Dunbar, and K.W.W. Sims (2008). “*Geochemistry and mineralogy of the phonolite lava lake, Mount Erebus volcano, Antarctica: 1972 – 2004 and comparison with older lavas.*” Invited article to special volume on Mt Erebus in *Journal of Volcanology and Geothermal Research*, 177, 589-605. doi: 10.1016/j.jvolgeores.2007.11.025.

35) Sims, K.W.W., J. Blichert-Toft, P.R. Kyle, S. Pichat, J. Bluzstajn, P.J. Kelly, L.A. Ball, and G. D. Layne (2008). “*A Sr, Nd, Hf, and Pb isotope perspective on the genesis and long-term evolution of alkaline magmas from Erebus volcano, Antarctica.*” Invited article to special volume on Mt. Erebus in *Journal of Volcanology and Geothermal Research*, 177, 606-618. doi: 10.1016/j.jvolgeores.2007.08.006.

34) Reagan, M.K., S. Turner, M.K. Legg, K.W.W. Sims, and V.L. Hards (2008). “ *^{238}U and ^{232}Th decay series constraints on the timescales of crystal fractionation to produce the phonolite erupted in 2004 near Tristan da Cunha, South Atlantic.*” *Geochimica et Cosmochimica Acta*, 72, 17, 4367-4378. doi: 10.1016/j.gca.2008.06.002.

33) Sims, K.W.W., S.R. Hart, M.K. Reagan, J. Bluzstajn, H. Staudigel, R.A. Sohn, G.D. Layne, L.A. Ball and J. Andrews (2008). “ *^{238}U - ^{230}Th - ^{226}Ra - ^{210}Pb - ^{210}Po , ^{232}Th - ^{228}Ra and ^{235}U - ^{231}Pa constraints on the ages and petrogenesis of Vailulu and Malumalu Lavas, Samoa.*” *Geochemistry, Geophysics, Geosystems*, 9, Q04003. doi:10.1029/2007GC001651.

32) Sims, K.W.W., J. Gill, A. Dossetto, D. Hoffmann, C.C. Lundstrom, R. Williams, L.A. Ball, D. Tollstrup, S.P. Turner, J. Prytulak, J. Glessner, J.J. Standish, and T. Elliott (2008). “*An inter-laboratory assessment of the Th Isotopic Composition of Synthetic and Rock standards.*” *Geostandards and Analytical Research*, 32, 1, 65-91. doi: 10.1111/j.1751-908X.2008.00870.x.

31) *Elkins, L.J., G.A. Gaetani, and K.W.W. Sims (2008). “*Partitioning of U and Th during garnet pyroxenite melting: constraints on sources of alkaline ocean island basalts.*” *Earth and Planetary Science Letters*, 265, 270-286. doi:10.1016/j.epsl.2007.10.034.

30) Ball, L.A., K.W.W. Sims, and J. Schwieters (2008). “*Measurement of $^{234}\text{U}/^{238}\text{U}$ and $^{230}\text{Th}/^{232}\text{Th}$ in volcanic rocks using the Neptune PIMMS.*” *Journal Analytical Atomic Spectrometry*, 23, 173-180. doi: 10.1039/b703193a.

- 29) Turner, S.P., K.W.W. Sims, and M.K. Reagan (2007). “*A ^{210}Pb - ^{226}Ra - ^{230}Th - ^{238}U study of Klyuchevskoy and Bezymianny volcanoes, Kamchatka.*” *Geochimica Cosmochimica Acta*, 71, 4771-4785. doi: 10.1016/j.gca.2007.08.006.
- 28) Giammanco, S., K.W.W. Sims, and S.M. Neri (2007). “*Shallow rock stresses and gas transport at Mt. Etna (Italy) monitored through ^{220}Rn , ^{222}Rn and soil CO_2 emissions in soil and fumaroles.*” *Geochem., Geophys., Geosys*, 8, Q10001. doi:1029/2007GC00164.
- 27) *Moune, S., F. Faure, P.-J. Gauthier, and K.W.W. Sims (2007). “*Pele’s hairs and tears: natural probe of volcanic plume.*” *Journal of Volcanology and Geothermal Research*, 164, 244-253. doi:10.1016/j.jvolgeores.2007.05.07.
- 26) Sims, K.W.W., R.P. Ackert, Jr., F. Ramos, R.A. Sohn, M.T. Murrell, and D. J. DePaolo (2007). “*Determining eruption ages and erosion rates of Quaternary basaltic volcanism from combined U-series disequilibria and cosmogenic exposure ages.*” *Geology*, 35, 471-474, doi:10.1130/G23381A.1.
- 25) *Aciego, S.M., D.J. DePaolo, B.M. Kennedy, M.P. Lamb, K.W.W. Sims, and W. Dietrich (2007). “*Combining [^3He] cosmogenic dating with U-Th/He eruption ages using olivine in basalt.*” *Earth and Planetary Science Letters*, 254, 3-4, 288-302. doi: 10.1016/j.epsl.2006.11.039.
- 24) Sims, K.W.W. and S.R. Hart (2006). “*Comparison of Th, Sr, Nd and Pb Isotopes in Oceanic Basalts: Implications for Mantle Heterogeneity and Magma Genesis.*” *Earth and Planetary Science Letters*, 245, 743-761. doi: 10.1016/j.epsl.2006.02.030.
- 23) Sohn, R.A. and K.W.W. Sims (2005). “*Bending as a mechanism for triggering off-axis volcanism on the East Pacific Rise.*” *Geology*, 33, 2, 93-96. doi: 10.1130/G21116.1.
- 22) *Pichat, S., K.W.W. Sims, R. François, J.F. McManus, S. Brown-Legger, and F. Albarède (2004). “*Lower export production during glacial periods in the equatorial Pacific as derived from ($^{231}\text{Pa}/^{230}\text{Th}$) measurements in deep-sea sediments.*” *Paleoceanography*, 19, 4023. doi: 10.1029/2003PA000994.
- 21) Drakos, P., K.W.W. Sims, J. Riesterer, J. Blusztajn, and J. Lazarus (2004). “*Chemical and Isotopic Constraints On Source-Waters and Connectivity Of Basin-Fill Aquifers in the Southern San Luis Basin, New Mexico.*” Invited, New Mexico Geological Society Guidebook, *Geology of the Taos Region*, pp 405-414.
- 20) Tepley, F.J. III, C.C. Lundstrom, K.W.W. Sims, and R. Hékinian (2004). “*U-series Disequilibria in MORB From the Garrett Transform and Implications for Mantle Melting.*” *Earth and Planetary Science Letters*, 223, 1-2, 79-97. doi: 10.1016/j.epsl.2004.04.010.
- 19) Sims, K.W.W., J. Blichert-Toft, D.J. Fornari, M.R. Perfit, S.J. Goldstein, P. Johnson, D.J. DePaolo, and P. Michaels (2003). “*Aberrant Youth: Chemical and isotopic constraints on the young off-axis lavas of the East Pacific Rise.*” *Geochemistry, Geophysics, Geosystems*, 4, 10, 8621, doi:10.1029/2002GC000443.
- 18) Reagan, M.K., K.W.W. Sims, J. Enrich, R.B. Thomas, H. Cheng, R.L. Edwards, G.D. Layne, and L.A. Ball (2003). “*Time-scale of differentiation from mafic parents to rhyolite in*

North American continental arcs.” *Journal of Petrology*, 44, 9, 1703-1726. doi: 10.1093/petrology/egg057.

17) Bourdon, B. and K.W.W. Sims (2003). “*U-series constraints on intraplate magmatism.*” In *Uranium Series Geochemistry*, eds. B. Bourdon, G.M. Henderson, C.C. Lundstrom, and S.P. Turner; *Reviews in Mineralogy and Geochemistry*, 52, 215-253. doi: 10.2113/0520215.

16) **Cooper, K., S.J. Goldstein, K.W.W. Sims, and M.T. Murrell (2003). “*Uranium-Series Chronology of Gorda Ridge Volcanism: New evidence from the 1996 Eruption.*” *Earth and Planetary Science Letters*, 206, 3, 459-475. doi:10.1016/S0012-821X(02)01083-X.

15) **Jull, M., P. Kelemen, and K.W.W. Sims (2002). “*Melt migration and uranium series disequilibria: the combined effect of porous and conduit flow.*” *Geochimica et Cosmochimica Acta*, 66, 23, 4133-4148.

14) Sims, K.W.W., S.J. Goldstein, J. Blichert-Toft, M.R. Perfit, P. Kelemen, D.J. Fornari, P. Michael, M.T. Murrell, S.R. Hart, D.J. DePaolo, G.D. Layne, and M. Jull (2002). “*Chemical and isotopic constraints on the generation and transport of melt beneath the East Pacific Rise.*” *Geochimica et Cosmochimica Acta*, 66, 19, 3481-3504. doi:10.1016/S0016-7037(02)00909-2.

13) **Choi, M.S., R. Francois, K.W.W. Sims, M.P. Bacon, S. Legger-Brown, A.P. Flerer, L.A. Ball, D. Schneider, and S. Pichat (2001). “*Rapid determination of ^{230}Th and ^{231}Pa in seawater by Inductively coupled plasma mass spectrometry.*” *Marine Chemistry*, 76, 99-112.

12) Layne, G.D. and K.W.W. Sims (2000). “*Analysis of $^{232}\text{Th}/^{230}\text{Th}$ in volcanic rocks by Secondary Ionization Mass Spectrometry.*” *International Journal of Mass Spectrometry*, 203, 1-3, 187-198.

11) Hart, S.R., H. Staudigel, A.A.P. Koppers, J. Blusztajn, E.T Baker, R. Workman, M. Jackson, E. Hauri, K.W.W. Sims, D.J. Fornari, A. Saal, and S. Lyons (2000). “*Vailulu’u Undersea Volcano: The New Samoa.*” *Geochemistry, Geophysics, Geosystems*, 1, 2000GC000108.

10) Sims, K.W.W., M.T. Murrell, D.J. DePaolo, W.S. Baldrige, S.J. Goldstein, D. Clague and M. Jull (1999). “*Porosity of the melting zone and variations in the solid mantle upwelling rate beneath Hawaii: Inferences from ^{238}U - ^{230}Th - ^{226}Ra and ^{235}U - ^{231}Pa disequilibria.*” *Geochimica et Cosmochimica Acta*, 63, 23, 4119-4138, doi: 10.1016/S0016-7037(99)00313-0.

9) *Stracke, A., V.J.M. Salters and K.W.W. Sims (1999). “*Assessing the role of pyroxenite in the source of Hawaiian basalts: Hf-Nd-Th isotope evidence.*” *Geochemistry, Geophysics, Geosystems*, 1, 1999GC000013. doi: 10.1029/1999GC000013.

8) Sims, K.W.W. and D.J. DePaolo (1997). “*Inferences about mantle magma sources from incompatible element concentration ratios in oceanic basalts.*” *Geochimica et Cosmochimica Acta*, 61, 4, 765-784. doi: 10.1016/S0016-7037(96)00372-9.

7) Newsom, H.E., K.W.W. Sims, P.D. Noll, W.L. Jaeger, S.A. Maehr, and T.B. Bassera (1996). “*The depletion of W in the bulk-silicate Earth: constraints on core formation.*” *Geochimica et Cosmochimica Acta*, 60, 7, 1155-1169. doi: 10.1016/0016-7037(96)00029-4.

- 6) Sims, K.W.W., D.J. DePaolo, M.T. Murrell, W.S. Baldrige, S.J. Goldstein, and D. Clague (1995). “*Mechanisms of magma generation beneath Hawaii and Mid–Ocean ridges: U–Th and Sm–Nd isotopic evidence.*” *Science*, 267, 508–512. doi: 10.1126/science.267.5197.508.
- 5) Newsom, H.E. and K.W.W. Sims (1991). “*Core formation during early accretion of the Earth.*” *Science*, 252, 926-933. doi: 10.1126/science.252.5008.926.
- 4) Sims, K.W.W., and E.S. Gladney (1991). “*Determination of As, Sb, W and Mo in silicate matrices by epithermal neutron activation and inorganic ion exchange.*” *Analytica Chimica Acta*, 251, 297-303. doi: 10.1016/0003-2670(91)87150-6.
- 3) Sims, K.W.W., H.E. Newsom, and E.S. Gladney (1990). “*Chemical fractionation during formation of the Earth’s core and continental crust: Clues from As, Sb, W and Mo.*” In *Origin of the Earth*, J. Jones and H.E. Newsom (eds.), New York: Oxford University Press; Houston. Lunar and Planetary Institute. ISBN 0-19-506619-7.
- 2) Sims, K.W.W., E.S. Gladney, C.C. Lundstrom, and N.W. Bower (1988). “*Elemental concentrations in Japanese silicate rock standards: a comparison with the literature.*” *Geostandards Newsletter*, 12, 379-389.
- 1) Cohen, A.S., D.S. Ferguson, P.M. Gram, S.L. Hubler, and K.W.W. Sims (1986). “*The Distribution of Coarse Grained Sediments in Modern Lake Turkana, Kenya: Implications for Clastic Sedimentation Models of Rift Lakes.*” In *Sedimentation in the African Rift Systems*, L.E. Frostik (ed.), Geologic Society of London, Special Publication 23, 212-223.

Non-Refereed Publications/Reports:

- Drakos, P., J. Lazarus, J. Riesterer, K.W.W. Sims, and M. Hodgins (2006). “*Subsurface Stratigraphy, the Effects of Faults on Groundwater Flow, Chemical and Isotopic Constraints on Source-Waters and Connectivity of Basin-Fill Aquifers in the Southern San Luis Basin, NM.*” Report of the 2006 Ground Water Summit, National Ground Water Assoc.
- Drakos, P., J. Lazarus, J. Riesterer, M. Hodgins and K.W.W. Sims (2005). “*Structural controls on ground water flow and recharge into the southern San Luis Basin near Taos, NM.*” USGS field report on San Luis basin hydrology.
- Drakos, P., J. Riesterer, J. Lazarus, and K.W.W. Sims (2003). “*Evaluation of Pumping Effects at Zuni Salt Lake in the Atarque Sandstone Aquifer from Fence Lake Mine.*” Glorieta Geoscience, Inc. consulting report, 19 p. plus Appendices.
- Sims, K.W.W. (2006). “*Geology of New Mexico.*” In *Rock Climbing in New Mexico* by Dennis Jackson, Falcon Press Co., Inc, Helena Montana, ISBN 10:00-7627-3132-9.

CONTRACTS & GRANTS

University of Wyoming

Funded Projects as PI

National Science Foundation

(2015-2017) *Toward a Better Understanding of Magmatic Processes and Volcanic Hazards at Nyiragongo Volcano, DR Congo.* (NSF-EAR, notification of funding January- \$267,619.00).

(2013-2016) *Collaborative Research: U- and Th-decay series dating of seafloor hydrothermal deposits.* In collaboration with Susan Humphris and Margaret Tivey, WHOI, (NSF OCE-1260079, \$209,078).

(2012-2015) *Collaborative Research: A geochemical study of the nature and evolution of mantle upwelling beneath Ross Island and its relationship to tectonics in the West Antarctica Rift System.* In collaboration with Phil Kyle, NM Tech (NSF OPP ANT-1141167, \$323,942).

(2010-2011) *Acquisition of a MC-ICPMS for U of Wyoming.* UW (NSF-EAR 0960270, \$875,000).

National Geographic Research Council

(2014-2015) *Understanding Sangay Volcano: A Geologic Expedition to “The Frightener”.* (\$29,500).

National Geographic Expedition Council

(2010) *Timescales of magmatic processes and eruption ages of the Nyiragongo Volcanics, DR Congo.* (\$10,290).

University of Wyoming- National Park Service Research Center

(2011-2012) *The use of radiogenic isotopes in understanding residence times, mixing processes, and water-rock interactions in the Yellowstone hydrothermal system.* (Small Grants Program, 2011, \$4,500).

(2012-2013) *The use of radiogenic isotopes in understanding residence times, mixing processes, and water-rock interactions in the Yellowstone hydrothermal system.* (Small Grants Program, 2010, \$5,000).

Funded Projects as Co-PI

National Science Foundation

(2012-2013) *Collaborative Research: Rear-arc magmatism in the Northern Volcanic Zone of the Andes.* In collaboration with former Post Doc Jennifer Garrison, now at Cal State LA (NSF EAR 1019545, \$109,513).

(2011-2014) *Collaborative RUI: Uranium-Series Constraints on Melting in the Jan Mayen Region.* In collaboration with my former WHOI PhD student Lynne Elkins, now at Bryn Mawr (NSF OCE 1060434, \$113,000).

(2011-2012) *Collaborative Research: Rates of Carbonate Formation in the Samail Ophiolite, Oman: Implications of Ultramafic Weathering for the Carbon Cycle.* In

collaboration with Susan Humphris, WHOI, and funded the research of my WHOI PhD student Evelyn Mervine (NSF EAR- 1049950, \$30,000).

Department of Energy

(2010-2013) *Measurements of ^{222}Rn , ^{220}Rn , and CO_2 emissions in natural CO_2 fields in Wyoming: MVA techniques for determining gas transport and caprock integrity.* PI- John Kaszuba, UW (DOE DE-FE0002112, \$299,588).

Pending Projects as Co-PI

National Science Foundation

Collaborative Research: Coupling Temporal Changes in Geologic Processes to Spatial Distributions of Geochemical and Microbial Diversity in Continental Hydrothermal Systems (NSF-EAR IES, 2014, \$426,425).

Proposals not accepted as PI

National Science Foundation

Collaborative Research: A Multi-Faceted Approach to Understanding Fluid Mobilization During Seperpentization of Oceanic Crust (NSF-EAR 2014, \$440,875.00).

Collaborative Research: Quantifying Timescales of Axial Volcanic Ridge Evolution at 45N Mid-Atlantic Ridge (NSF-OCE, 2011, \$228,175; NSF-OCE, 2013, \$188,326).

Collaborative Research: Geochronology, petrology and geochemical study of the nature, and evolution of mantle upwelling beneath Ross Island (NSF-PLR-ANT, 2011, \$309,033).

Collaborative Research: Rates of Carbonate Formation in the Samail Ophiolite, Oman: Implications of Ultramafic Weathering for the Carbon Cycle (NSF-EAR, 2009, \$99,857).

Proposals not accepted as Co-PI

National Science Foundation

Collaborative Research: Determining magma storage depths and ascent rates using diffusive water loss from olivine-hosted melt inclusions. (NSF-PLR, 2014 \$66,660).

Collaborative Research: Coupling Temporal Changes in Geologic Processes to Spatial Distributions of Geochemical and Microbial Diversity in Continental Hydrothermal Systems (NSF-EAR IES, 2013 \$396,648).

Collaborative Research: Abiotic and biotic weathering fluxes from subglacial southern Greenland, a multi-proxy approach (NSF-PLR, 2013 \$298,168).

Collaborative Research: RUI: Investigating Diverse Styles of Frequent, Small- Volume Silicic Eruptions in the Ecuadorian Rhyolite Province (NSF-EAR, 2013, \$297,057).

Collaborative Research: Quantitative Measurement of Dynamic Subglacial Water Residence Times and Related Biotic and Abiotic Isotope Effects (NSF-PLR, 2012, \$167,542).

Collaborative RUI: The Generation of Crust at the Ultraslow-Spreading Gakkel Ridge from U-series Isotopic Variations (NSF-PLR, 2012, \$135,505).

Collaborative Research: Role of Off-Axis Melt Sills in Volcanic Eruptions and Hydrothermal Flow near the East Pacific Rise (NSF-OCE, 2010, \$244,048).

Woods Hole Oceanographic Institution

Funded Projects as PI

National Science Foundation

(2006-2008) *U-series age constraints applied to oceanic crustal genesis at 9-10°N EPR*. In collaboration with A. Soule (NSF-OCE 060383800, \$234,163).

(2006-2008) *Volcanic sources of volatile Platinum Group Elements*. In collaboration with B. Ehrenbrink (NSF-EAR, 063824101, \$270,000).

(2004-2006) *A slow spreading ridge: ^{238}U and ^{230}Th excesses in Kolbeinsey Ridge basalts* (NSF OCE-0422278, \$290,687).

(2002-2003) *SGER: Melt Generation and Transport during Basalt Petrogenesis: Constraints from Measurements of ^{227}Ac - ^{231}Pa Activity Ratios*. In collaboration with M. Charette (NSF OCE-0228677, \$57,006).

(2001-2003) *Spatial and Temporal Variations in Mid-Ocean Ridge Basalt Geochemistry along and across the East Pacific Rise*. In collaboration with D.J. Fornari (NSF OCE-0137325, \$179,630).

(2001-2003) *U-Series Isotopic Constraints on the Rates Of Magma Genesis, Evolution and Degassing At Mt Erebus, Antarctica*. In collaboration with P. Kyle (NSF OPP-0126269, \$117,582).

(2000-2001) *Acquisition of a MC ICPMS for the Woods Hole Oceanographic Institution Dedicated to the Study of Earth and Ocean Sciences*. In collaboration with S.R. Hart, G.E. Ravizza, B. Peucker-Ehrenbrink, and M. Kurz (NSF OCE-0079733, \$547,011).

(2000-2002) *A Coupled Geodynamic/Geochemical Study of the Hawaiian Plume*. In collaboration with D.J. DePaolo, J. Bryce, M. Jull and N. Ribe (NSF EAR-0001924, \$65,000).

(1999-2001) *Melt Generation and Transport Beneath Hawaii: Characterizing the Zero Age Plume* (NSF EAR-9909473, \$148,004).

(1997-1999) *U-Series Analyses of Young Lavas from the East Pacific Rise 9°48'N to 9°52'N: Using Lavas from the 1991 Eruption as a Baseline to Constrain the Nature and Timing of MORB Petrogenesis*. In collaboration with S.R. Hart and D.J. Fornari (NSF OCE-9730967, \$180,890).

(1997) *The Actinides Proxys of Nutrients and the Tuning of Thermohaline Circulation during the Last Glacial Maximum*. In collaboration with F. Albarede, R. Francois, Ecole Normale Superieur (NSF INT-9726941, \$48,000).

WHOI Mellon Awards:

(2008) *Dating terrestrial carbonates in the Samail Ophiolite with implications for carbon sequestration* (\$47,728).

(2006) *Using Nickel as a New Isotope Tracer of Oceanic Processes*. In collaboration with Olivier Rouxel (\$48,875).

(2001) *Melt Generation and Transport during Basalt Petrogenesis: Constraints from Measurements of ^{227}Ac - ^{231}Pa Activity Ratios*. In collaboration with M. Charette (\$29,830).

(1999) *Investigation of an Exposed Vertical Lava Sequence in a Post-Glacial Shield Volcano in the Northern Rift Zone of Iceland*. In collaboration with M. Jull (\$30,000).

WHOI: Mentorship Program

(2000) *Mentorship proposal for Acquisition of a MC ICPMS for the Woods Hole Oceanographic Institution Dedicated to the Study of Earth and Ocean Sciences*. In collaboration with S.R. Hart (\$57,567).

Funded Projects as Co-PI

National Science Foundation

(2008-2010) *Collaborative Research: A ^{210}Pb paradox?* In collaboration with Mark Reagan-PI (NSF-EAR 083887800, \$145,900).

(2007-2009) *Collaborative Research: U-series constraints on the ages and petrogenesis of Lau Basin Lavas*. In collaboration with Charlie Langmuir-PI (NSF OCE-073248000, \$76,444).

(2007) *Virunga Volcanic SO_2 Emissions Research (VISOR) Project*. In collaboration with A. Shaw and Simon Carn – PI (Subcontract with Michigan Tech, MI., \$30,000)

(2006-2008) *Collaborative Research: Evaluating the Competing Roles of Garnet and Fluid in Controlling U-Th Disequilibria in Lavas of the Aleutian Island Arc*. In collaboration with G. Yogodzinski-PI (NSF EAR-0610671, \$69,974).

(2006-2008) *Continued Technician Support for the WHOI ICPMS Facility*. In collaboration with B. Ehrenbrink, S. Hart, O Rouxel, and S. Thorrold (NSF EAR-0651366, \$89,343).

(2006-2008) *Collaborative Research: Anatomy of an Overlapping Spreading Center: Geochemical and Geological Study of the EPR 9°03'N OSC*. In collaboration with E. Klien-PI (NSF-OCE 062705300, \$124,083)

(2003-2005) *Technician Support for the WHOI ICPMS Facility*. In collaboration with B. Ehrenbrink, R. Francois, S. Hart, and S. Thorrold (NSF EAR-0318137, \$224,200).

(2003-2005) *Collaborative Research: Timescales of magmatic differentiation and crustal assimilation beneath Iceland: Combined U-series and oxygen isotope studies*. In collaboration with K. Cooper-PI (NSF EAR-0307123, \$34,814)

(2000-2002) *Collaborative Research: U-Series Constraints on Rhyolite Genesis at Medicine Lake Volcano*. In collaboration with M. Reagan-PI (NSF EAR-0000886, \$41,262)

WHOI: Deep Exploration Institute

(2007) *Constraining the Age and Evolution of an Axial Volcanic Ridge on the Mid Atlantic Ridge*. In collaboration with M. Tivey (Deep Ocean Exploration Institute, \$54,294).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Memberships in professional societies

Geological Society of America, Member (2005-present)
American Geophysical Union, Life Member (1994-present)
IAVCEI, Life Member (2007-present)

Grant review panels

NSF Grant Proposal Panelist for various years for NSF-OCE, NSF-PLR-ANT, NSF EAR
Assessor for the Australian Research Counsel (2013 – present).

Grant Refereeing

Refereeing of numerous NSF, NERC, IGPP and CNRS proposals and internal WHOI and UW proposals.

Manuscript Refereeing

Numerous manuscripts for: Nature; Science; Nature Geoscience; Proceedings of the National Academy of Sciences; Geology; Earth and Planetary Science Letters; Journal of Volcanology and Geothermal Research; Geochimica Cosmochimica Acta; Chemical Geology; Icarus; Geochemistry, Geophysics, Geosystems; Geophysical Research Letters; Journal of Geophysical Research; Geostandards and Analytical Research; Journal Analytical Atomic Spectrometry; American Mineralogist, Contributions to Mineralogy and Petrology; and, Journal of Petrology.

HONORS AND AWARDS

Faculty Senate Speaker, University of Wyoming (2014)
Meritorious Teaching Award, University of Wyoming, College of Arts and Sciences (2014)
Papadopoulos Fellow, Kincaid School, Houston, Texas (2012)
Mellon Independent Study Awards, Woods Hole Oceanographic Institution (1999; 2001; 2006; 2008)
Postdoctoral Scholar Fellow, Woods Hole Oceanographic Institution (1995–1997)
IGPP Graduate Fellowship, Los Alamos National Laboratory/UC Berkeley (1991–1995)
Outstanding Graduate Student Instructor, University of California, Berkeley (1992)
Estwing Outstanding Senior, Colorado College (1986)
Getty Oil Fellowship, Colorado College (1984–1985)

INVITED LECTURES/ SYMPOSIA/PROFESSIONALMEETINGS/WORKSHOPS

INVITED ACADEMIC KEYNOTE and PLENARY TALKS

Keynote speaker, Frontiers of U-series Research, Sydney (2014)
Keynote speaker, Goldschmidt Conference, Prague, Czechoslovakia (2011)
Plenary Lecture, 16th International Symposium on Polar Sciences, Incheon, Korea (2009)
Keynote speaker, Goldschmidt Conference, Cologne, Germany (2007)
Keynote speaker, International Conference on Evolution, Transfer and Releases of Magmas and Volcanic Gases, Academia Sincia, Taipei (2007)
Keynote speaker, International Association of Volcanology and Chemistry of Earth's Interior, Guangzhou, China (2006)
Keynote speaker, Goldschmidt Conference, Moscow Idaho, USA (2005)
Plenary Lecture, UC-Santa Cruz Keck Laboratory Dedication (2004)
Keynote speaker, Goldschmidt Conference, Davos, Switzerland (2002)
Keynote speaker, Goldschmidt Conference, Oxford, UK (2000)
Invited American Geophysical Union Meeting talks (1995; 1996; 1999; 2003; 2006; 2012)

INVITED DEPARTMENT COLLOQUIUM TALKS

Instituto Geofísico Escuela Politécnica Nacional, Quito-Ecuador (December, 2014)
Montana State University, MT (April, 2014)
Macquarie University, Sydney, AUS (February 2014)
University of Arizona, AZ (February, 1993; March, 2014)
Colorado State University, CO (February, 2012)
Cambridge University, UK (November, 2008)
Oxford University, UK (November, 2008)
University of Iowa, IA (November, 2008; October, 2010)
Michigan Tech University, MI (September, 2008)
Boston University, MA (November, 2006)
Air Force Academy, CO (March, 2000; September, 2006; May, 2011)
Harvard University, MA (April, 1999; March, 2002; December, 2005; January, 2012)
Dartmouth College, NH (November, 2004)
University of Wyoming, WY (April, 2003; September, 2008)
University of Mainz, Germany (March, 2003)
Institut Universitaire Européen de la Mer (IUEM), Brest, France (October 2002)
University of Bristol, UK (October, 2001; November, 2008)
École Normale Supérieure, Lyon, France (November, 1999; March, 2001)
Massachusetts Institute of Technology, MA (April, 2001; November, 2005)
Colorado College, CO (September, 1996; October, 2001)
Brown University, RI (March, 1999)
University of Rochester, NY (March, 1999)
Department of Terrestrial Magnetism, Carnegie, Washington DC (October, 1997)
New Mexico Institute of Mining and Technology, NM (April, 1997)
University of Hawaii, HI (April, 1993; March, 1997)
University of Maine, ME (November, 1996)
University of Rhode Island, RI (October, 1996; October, 2001)
University of Florida, FL (April, 1996)
Florida State University, FL (April, 1996)
Hawaiian Volcano Observatory, HI (April, 1993; 1994)

CONFERENCE ORGANIZATION

- Theme Organizer, International Scientific Organizing Committee, Goldschmidt 2012, Montreal, Canada, “*Ocean Ridge and Intraplate Volcanism: Deep Mantle Supply, Tectonic-magmatic Processes, and Ore Deposits through Time*”
- Session Organizer and Convener, Goldschmidt 2012, Montreal, Canada, “*The Occurrence, Genesis and Evolution of Alkaline Magmas*”
- Session Organizer and Convener, American Geophysical Union Fall Meeting, 2008, San Francisco, CA, “*Innovations in Isotope Mass Spectrometry and Isotope Metrology in Geochemistry*”
- International Scientific Program Committee, Goldschmidt 2006, Melbourne, Australia, Session Organizer and Convener, Goldschmidt 2006, Melbourne, Australia, “*Integrated Studies of MORB Petrogenesis: Sources, Melting Processes, and Timescales*”
- RIDGE Y2K Implementation Plan Workshop, Albuquerque, NM, 2002
- Invited Discussion Leader RIDGE Y2K Educational Workshop, Long Beach, CA, 2002
- Session Chair, American Geophysical Union Fall Meeting, 1997, “*Volcanology II: Timing of Magmatic Processes*”
- Session Organizer and Convener, Goldschmidt, 1999, “*Mantle Melting: Sources, Timescales, Melt Migration and Melt-solid Interaction*”
- Session Organizer and Chair, MELT Workshop, 1996

COMMITTEES

University of Wyoming Committees

- Yellowstone Volcano Observatory (2010-present)
- University Radiation Safety Committee (2011-present; Chair 2012-present)
- University Research Advisory Committee (2011-present)
- Stable Isotope Facility Steering Committee (2012-present)
- University Studies Program Task Force II (2011-2012)
- Engineering Initiative Working Group (2013-present)

University of Wyoming, Department of Geology and Geophysics Committees

- Geology and Geophysics, Associate Department Head (2012-present)
- Geology and Geophysics, Academic Assessment Committee (2014-present)
- Geology and Geophysics Chemical Safety Officer (2009-2012)
- Geology and Geophysics Advisory Committee (2009-2011)
- Geology and Geophysics Graduate Admissions Committee (2010)

Woods Hole Oceanographic Institution

- Scientific Staff Executive Committee (2007-2009)
- Radiation Safety Committee (2004-2009)
- Geology and Geophysics Safety Committee (2002-2009)
- ICPMS/PIMMS Oversight Committee (2001-2009; Chair, 2001-2004; 2008-2009)
- Post-Doctoral Mentoring Committee (2006-2009)
- Geology and Geophysics, Internal Merit Review Committee (2002; 2003)
- Geology and Geophysics, “Space Committee” (2004; 2008)

STUDENT ADVISING/GRADUATE SUPERVISION

UNDERGRADUATE STUDENTS:

- 16 Current Undergraduate Advisees -2014/2015
- 11 Previous Undergraduate Advisees -2013/2014
- 8 Previous Undergraduate Advisees -2012/2013
- 9 Previous Undergraduate Advisees -2011/2012
- 7 Previous Undergraduate Advisees -2010/2011
- 4 Previous Undergraduate Advisees -2009/2010

Independent Research Projects:

- Karli Kominsky (2009)– Textural Constraint on Magma Mixing in the Tshicoma Dacite
- Virginia Marcon (2009) – Rn and CO2 Fluxes at Moxa Arch, Wyoming
- Michael Even (2010) – Mafic Enclaves in Jemez Volcanic Field
- Laura Bueter (2011)– Recording Continual Change: Mapping Mammoth Terraces, YNP
- Krista Evens (2011)– Soil Formation at Hell Gap Archeological Site
- Evan Soderburg (2011)– Rn Emanation During Soil Degassing
- Nicole Lester (2012) –Low Level Counting of U and Th decay series
- Mike Schedel (2012)– Rn Emanation During Soil Degassing
- Manish Dhakal (2013, 2014)– Measurement of Ra Isotopes in Hydrothermal Fluids

GRADUATE STUDENTS:

Current Graduate Advisees:

- Erin Phillips Writer, PhD Candidate
- Sean Scott, PhD Student
- Abraham Role, PhD Student

Current Graduate Committee Memberships (excluding advisees):

1 # MS/MA (thesis)
4 # PhD

Graduate Degrees Completed Under Your Supervision (past 5 years):

University of Wyoming

- Tim Moloney, MSc, 2011
- Tim Mathews, MSc, 2012

Woods Hole Oceanographic Institution/MIT Joint Program

- Evelyn Mervine, Ph.D., 2012
- Chris Waters, Ph.D., 2010
- Lynne Elkins, Ph.D., 2009

Postdoctoral Students/Research Associates:

University of Wyoming

- Chris Waters, (2010-211).

Woods Hole Oceanographic Institution:

- Matthew Jull (1998), Sylvan Pichat (2007), Christian Miller (2009),
Olivier Reubi (2008)

OTHER ACTIVITIES/ACCOMPLISHMENTS

PUBLIC ENGAGEMENT

International Print Media

- Science News, Dec 12, 2014, “*Studying a Volcano in a War Zone.*”
<https://www.sciencenews.org/article/studying-volcano-war-zone>
- National Geographic Kids, November, 2013, “*Dare to Explore.*”
- MentalFloss, July/August 2013, “*Danger Lab-Lava Chaser.*”
- National Geographic Learning – Featured Scientist in Text Book “*Biology: Concepts and Applications.*”
- Geo Magazine Germany, October 2012, “*Die Vermessung der Hölle.*”
- Scholastic Science World, November 14, 2012, Vol. 68, No. 5 “*Into the Volcano*”
- National Geographic Learning – Featured Scientist in Text Book “*Geology and the Environment.*”
- National Geographic Magazine, March 2011, “*Volcano Next Door.*”
<http://ngm.nationalgeographic.com/2011/04/nyiragongo-volcano/finkel-text>
- National Geographic Magazine, March 2011, *Editors Note*,
http://blogs.ngm.com/blog_central/2011/03/editors-note-the-worlds-most-dangerous-volcano.html
- National Geographic Explorers Children’s Magazine, October 2011 “*Lessons in Lava.*”
<http://www.qg.com/smartools/ebook/hosted.rails?issue=9d1495681af3447ea017820e93a13a993fea30cdcea94331be25820e93a13a99>
- Weekly Reader Current Science Magazine, November 2011 “*Lake of Fire.*”
<http://www.weeklyreader.com/content/current-science-teaching-center-3>
- Colorado College Bulletin Alumni Magazine, December 2011, “*Alumni Profile*”
<http://blog.coloradocollege.edu/bulletin/2011/12/peak-profile-ken-sims-'86/>
- Children’s book “*Lava Scientists: Careers on the Edge of Volcanoes.*” 2009, Enslow Publishers Inc., (author Sara Latta) <http://www.saralatta.com/>
- New Scientist, December 2008, Featured Interview,
<http://www.newscientist.com/article/mg20026877.200-the-man-who-collects-molten-lava-for-a-living.html?full=true>
- New Scientist, July 2008, “*Into the Mouth of Hell.*”
- Oceanus, Fall 2006, “*Into the 'Mouth of Hell': A journey into the crater of an active volcano.*”
<http://www.whoi.edu/oceanus/viewArticle.do?id=13350§ionid=1000>
- Popular Mechanics, SA, November 2006, “*Into the 'Mouth of Hell.*”
- National Geographic Magazine, October 2004, “*Sniffing for Clues to the Dinosaurs Demise.*”

Television

- Spiegel TV GmbH , not yet aired, “*Yellowstone National Park.*”
- Discovery Channel, December 2012, “*Volcano Time Bomb.*”
<http://www.youtube.com/watch?v=7kgPna8NvJU>
- National Geographic Television, April 2011, “*Man versus Volcano.*”
<http://www.youtube.com/watch?v=pjzdQR5eHkA&feature=relmfu>
- Discovery Channel, March 6, 2009, “*Against the Elements, Masaya.*”
- NHK Public Television, Japan, 2001, “*Miracle Continent Antarctica – Mt Erebus.*”

Radio

- National Geographic Weekend Radio with Boyd Matson, aired January 19, 2015
“*Chasing Fire on the Frozen Continent.*”
<https://soundcloud.com/nationalgeographicradio/chasing-fire-on-the-frozen>

Public Speaking

National Geographic Society, Yellowstone Expedition Expert, July 2014.
National Geographic Society International Council of Advisors Retreat, September, 2013.
Denver Museum of Nature and Science, October 2012, “*Volcanos on the Verge.*”
Papadopoulos Fellow at Kincaid School in Houston, Texas 2012.
http://www.kinkaid.org/cf_news/view.cfm?newsid=653.
Boston Museum of Science, January 2012 “*Volcanos on the Verge.*”
<http://www.youtube.com/watch?v=t4BA7GKtpBU>

Other recent public outreach talks include- Laramie High School, Laramie Montessori School, University of Wyoming Lab School, Cathedral Home for Children, Wyoming Geological Association, Wyoming Power of Place Lecture in Rawlins, Jackson Hole Geologists, and Tufts Kindergarten in Boston.

Internet

National Geographic Blog for Geological Expeditions to Antarctica and Ecuador
<http://voices.nationalgeographic.com/author/kensims/>
National Geographic Explorer Site
<http://www.nationalgeographic.com/explorers/bios/kenneth-sims/>
The Antarctica Sun, Nov 2014, “*Chipping away: rock samples offer clues to volcanic evolution of Ross Island.*”
<http://antarcticsun.usap.gov/science/contenthandler.cfm?id=4089>

Wyoming Print Media

Casper Star Tribune “*Answers from beneath.*” 03/26/2014.
Casper Star Tribune, Open Spaces, “*Into the fiery depths.*” 02/16/2012
Laramie Boomerang, “*Telling the stories of depth.*” 02/24/2012

FIELD EXPERIENCE and CRUISE PARTICIPATION

Sangay Volcano, Ecuador (2014)
Ross Island, Antarctica (2012; 2014)
Nyiragongo, Nyamuragira, DR Congo (2007; 2010)
Reventador, Sumaco Volcanoes, Ecuador (2011)
Yellowstone Volcano, Wyoming (multiple trips annually 2009-present)
Thermopolis, Wyoming (multiple trips annually 2009-present)
Mt. Etna, Italy (2004; 2005; 2006)
Stromboli, Italy (2006)
Vulcan Masaya, Nicaragua (2003; 2006)
9-10°N East Pacific Rise, RV Atlantis, with DSV Alvin (2001; 2004)
Hekla, Thjeistarykur, and Krafla Volcanoes, Iceland (1999; 2003)
Mt. Erebus, Antarctica (1988-89; 1989-90; 1990-91; 1993-94; 1994-95; 2002-03)
Samail Ophiolite, Oman (1997; 2009)
Kilauea, Mauna Loa, Hualalai, Mauna Kea and Haleakala, Hawaii (1992; 1993; 1997; 2008)
Transantarctic Mountains, Antarctica (austral summers 1991-92; 1995-96)
NASA Erebus Robotics Development Study, Mt. Erebus, Antarctica (1992-93)
Jemez Volcanic Field, New Mexico (1986; 2010)
Raton-Clayton Volcanic Field, New Mexico (2012)

COMMUNITY SERVICE

Rocky Mountain Field Institute, Member of the Board of Directors (1996-2010)

<http://www.rmfi.org/>

Ritt Kellogg Memorial Fund, Colorado College, Advisory Committee (1999- 2012; Chair, 2000-2007) <http://www.rittkelloggfund.org>

Big Brothers & Big Sisters of Cape Cod and the Islands, Member of the Board of Directors (1996-2001)

Big Brothers & Big Sisters of Cape Cod and the Islands, Big Brother for several little brothers (1996-2004)

High School Science Fair Judge – Falmouth MA, Berkeley CA, and Oakland CA

CORPORATE AFFILIATIONS

Opticad Corporation, Owner, 2008-present <http://www.opticad.com/apps.html>

Opticad Corporation, Member of the Board of Directors (1990-present)