

Peter W. Reiners

University of Arizona, Tucson, AZ

www.geo.arizona.edu/~reiners

reiners@arizona.edu

Academic Leadership

- Aug 2025- : Interim Associate Dean, Research, College of Science, Univ. Arizona
- 2023- 2024: Interim Associate Vice President, Research Centers & Institutes, Univ. Arizona
- Jan 2022-Dec 2022: Dean, Faculty of Environment, University of Northern British Columbia
- 2019-2021: Associate Dean, Research, College of Science, University of Arizona
- 2013-2018: Head of Department of Geosciences, University of Arizona
- 2011-2012: Associate Head of Department of Geosciences, University of Arizona

Faculty Positions and Education

Research and Scholarly Interest: Geochemistry; Subsurface fluid-rock systems; [Google Scholar profile](#)

- 2010- : Professor, University of Arizona (Associate Professor 2006-2010)
- 2023- : Adjunct Professor, University of Northern British Columbia
- Jan 2022-Dec 2022: Professor, Geography, Earth, & Environmental Science, UNBC
- 2005-2006: Associate Professor, Yale University (Assistant Professor 2001-2005)
- 1999-2001: Assistant Professor, Washington State University
- 1997-1999: Postdoctoral Scholar, GPS Division, California Institute of Technology
- 1997: Ph.D., Geological Sciences, University of Washington
- 1991: B.A., Geology, Carleton College

Selected Fellowships and Awards

- 2019: Fellow of the American Geophysical Union
- 2016: UA Academic Leadership Institute Fellow
- 2015: Fellow of the Geological Society of America
- 2004-2014: Scholar, Earth System Evolution, Canadian Institute for Advanced Research (CIFAR)
- 2012: EU Marie Curie Fellowship, CRPG, CNRS, Nancy, France
- 2002: National Science Foundation CAREER Award
- 1997: Caltech Texaco Prize Postdoctoral Scholarship

Selected Service/Outreach

2025: Invited Presentation to Charm Industrial: Subsurface bio-oil carbon storage rock-fluid reactions
2024: Invited Presentation to Climatebase Fellows: Durable Carbon Management is Beneath Us
2024: External Review Committees: Macalester College; University of Nevada Reno
2024: Lead, Carbon-Dioxide Removal Innovation Forum Workshop
2023-2024: UArizona Implementation Committee on Food and Agriculture
2023-2024: UArizona Hispanic Serving Institution Title III Advisory Committee
2024: UArizona DOE Funding Task Force
2020-2024: Arizona Space Institute Executive Board
2008-2022: Editorial Board: *Chemical Geology*
2005-2022: Associate Editor: *American Journal of Science*
2009-2013: Associate Editor: *Geochimica et Cosmochimica Acta*
2022: UNBC Excellence Awards Committee Chair
2022: UNBC Strategic Enrollment Management Chair
2022: UNBC Joint Consultation Committee preparation and negotiations training for union relations
2020-2021: Chair, UArizona COS Student Success Initiative Committee on Retention

2020: UArizona Research Space & Facilities Strategic Research Advisory Committee
2016-2018: Geochemical Society Nominations Committee
2019-2004: Led 6 two-week summer geochronology workshops for visiting grad students

Selected Courses Taught

- *Physical Geology, Geochronology and Thermochemistry, Introduction to Geochemistry, Contemporary Earth System Science, Evolution of the Earth, Ocean, and Atmosphere, Geologic Disasters and Society, Radiogenic Isotopes and Geochronology, Perspectives on Science, Mantle Dynamics and Geochemistry, Geochronology and Tectonics*

Significant Grants (only financial awards to Reiners' institution shown)

- 2025: Lead PI: \$47k: Charm Industrial, Geochemistry of subsurface bio-oil sequestration
- 2023-2024: Lead PI: \$100k, Arizona Institute for Resilience: Critical minerals, Earth's critical zone, and mission critical sustainability: Co-leveraging fundamental science of element mobility in natural settings and mineral resource extraction.
- 2021-2026: co-PI: \$2.8M, NSF: SMRFS: Subsurface Microbe-Rock-Fluid Systems.
- 2018-2021: Lead PI: \$1.3M, with matching, NSF: MRI: Acquisition of a Noble Gas Multi-Collector Mass Spectrometer for Geochronology and Geochemistry Research.
- 2021: Lead PI: \$60.5k, UArizona RII: Acquisition of IR laser heating system for noble gas geochronology
- 2019-2021: Lead PI: \$200k: Chevron: Noble Gas Geochronology Technique Development.
- 2017-2020 Lead PI: \$1.0M: W.F. Keck Foundation: Evolution of Crustal Paleofluid Flow Systems.
- 2016-2020: Co-PI: \$498k, NSF: East Antarctic Glacial Landscape Evolution (EAGLE): A Study using Combined Thermochemistry, Geochronology, and Provenance Analysis.
- 2014-2016: Co-PI: \$222k, NSF: Development of hematite (U-Th)/He chronology to directly date fault slip and ancient seismicity.
- 2014-2016: Lead PI: \$164k, NSF: Damage defects and diffusion of noble gases in minerals: He in zircon as a model system.
- 2012-2015: Lead PI: \$351k, NSF: Geochronology of Bedrock-hosted Secondary Iron Oxides and Shallow Crustal Fluid-flow and Brittle Deformation Histories.
- 2012-2014: Co- PI: \$100k, CIFAR: Development of New Proxies for Identification and Characterization of Paleowildfire, Postdoctoral Fellowship Support.
- 2012-2013: Lead-PI: \$43k, EU Marie Curie Fellowship: GEOSOX: Geochronology of secondary oxide minerals in bedrock and fluid flow and deformation histories.
- 2011-2013: Co- PI: \$79k, NSF: Little Devils Postpile Revisited: Intercalibration of Thermochemistry Kinetics in a Contact Aureole.
- 2010: Co-PI: \$1.9M, NSF, The suturing process: Insight from the Inda-Asia collision zone.
- 2010: Lead-PI: \$100k, CIFAR: Postdoctoral Fellowship Support: Magmatically induced crustal uplift, erosion, and dynamic feedbacks.
- 2009: Lead-PI: \$100k, CIFAR: Postdoctoral Fellowship Support: The geomorphic and thermochemical record of dynamic topography, Postdoctoral Fellowship Support.
- 2009: Lead PI: \$280k, NSF, Addressing current challenges in (U-Th)/He dating and running summer student workshops.
- 2009: Lead PI: NSF, \$296k, Collaborative research: Erosion history and sediment provenance of East Antarctica from multi-method detrital geo- and thermochemistry.
- 2008: Lead PI: NSF, \$300k, Technician Support: Arizona Radiogenic Helium Dating Lab and HR-ICP-MS Lab.
- 2008: Lead PI: NSF, \$21k, SGER: Triple-dating (Pb-FT-He) of Antarctic detritus and the origin of the Gamburtsev Mountains.

- 2008: Co-PI: ExxonMobil, \$300k, A Detrital Provenance and Thermochronological Transect of the western US Foreland Basin and Laramide Piceance Basin: Application of Zircon and Apatite Multi-Dating (SOSA).
- 2007: Lead PI: NSF, \$120k, UNAVCO: (U-Th)/He Geochronology support for GeoEarthscope investigators.
- 2005: Lead PI: NSF, \$120k, Clinker geochronology and geomorphic evolution of the Powder River Basin.
- 2005: Co-PI: NSF, \$298k, Glacial erosion in the Patagonian Andes: Testing the buzzsaw.
- 2004: Lead PI: ACS-PRF, \$97k, Thermochrology of modern and paleo-wildfire.
- 2004: Lead PI: NSF, \$107k, Acquisition of a 193 nm laser ablation system for ICP-MS and (U-Th)/He.
- 2003: Lead PI: NSF, \$412k, CAREER: Innovative (U-Th)/He thermochronometry and integration with undergraduate research.
- 2003: Lead PI: NSF, \$162k, Technician support for the Yale (U-Th)/He chronometry facility.
- 2002: Lead PI: ACS-PRF, \$80k, Detrital zircon He-Pb chronometry: Stratigraphic and provenance constraints in basin analysis.
- 2002: Co-PI: NSF, \$296k (Reiners portion only), Retreating-trench, extension, and accretion tectonics (RETREAT): A multi-disciplinary study of the Northern Apennines.
- 2001: Lead PI: NSF, \$50k, Acquisition of a laser extraction system for (U-Th)/He chronometry.
- 2001: Lead PI: NSF, \$177k, Uplift of the Washington Cascades and climatic evolution of eastern Washington.
- 2000: Lead PI: NSF, \$183k, Experimental development and calibration of (U-Th)/He thermochronometry.
- 2000: Lead PI: NSF, \$40k, Development of a radiogenic helium dating facility for experimental development of and applications in (U-Th)/He thermochronology.
- 2000: Lead PI: ACS-PRF, \$25k, Zircon (U-Th)/He thermochronometry and applications in tephrochronology, basin analysis, and orogenic exhumation.
- 2000: Co-PI: NSF, \$476k, Acquisition of a laser-ablation, inductively coupled plasma source, multicollector mass spectrometer (LA-ICP-MCMS) for isotope and trace element microanalysis.

Advising

Major advisor, 17 Postdoctoral Fellows, 6 PhD students, 7 MS students, 10 Undergraduate students

Peer-Reviewed Publications ([Google Scholar site](#); h-index: 75).

Books:

Reiners, P.W., Carlson, R.W., Renne, P.R., Cooper, K.M., Granger, D.E., McLean, N.M., and Schoene, B., 2017, *Geochronology and Thermochronology*, Wiley, 480 pp., ISBN: 978-1-118-45585-2.

Reiners, P.W., and Ehlers, T.A., (Eds), 2005, *Low-Temperature Thermochronology: Techniques, Interpretations, and Applications, Reviews in Mineralogy and Geochemistry*, v. 58, 622 pp.

Public-facing pieces:

Reiners, P.W., [Real Climate Solutions Are Beneath Us](#), *Eos*

Reiners, P.W., [Universities aren't doing enough for climate. Here's what a real sustainability plan would look like](#), *Salon*

Reiners, P.W., [Wet bulb temperature: The crucial weather concept that actually tells us when heat becomes lethal](#), *Salon*

Peer-Reviewed Articles:

Harman-Ware, A.E., Reiners, P.W., Clayton, L.K., Young, E., Jones, A., Cregger, M.A., Starace, A.K., Crotty, S.M., in review, Biomass Carbon Removal and Storage (BiCRS) Pathways: Assessing Durability of Carbon Products, *ACS Reviews*.

Majzlan, J., Jerabek, P., Kiefer, S., Stevko, M., Chovan, M., Prsek, J., Reiners, P., Dunkl, I., 2025, Cretaceous hydrothermal remobilization in the Central Western Carpathians: Dating of monazite-(Ce), xenotime-(Y), and hematite, *Geologica Carpathica*, 2025, v 76, 1–16, doi.org/10.31577/GeolCarp.2025.08.

Lucero, D., Bailey, L., Kim, J.-H., Voller, V., Hughes, A., Krantz, R., Lingrey, S., Barton, M.D., Barton, I., Reiners, P., McIntosh, J., Neuzil, C., Thorson, P., and Person, M. 2025, Influence of internal fluid driving mechanisms on red bed bleaching

- in the Paradox Basin (Colorado Plateau, Utah and Colorado, USA), *Geological Society of America Bulletin*, doi.org/10.1130/B37654.1.
- Muller, V.A.P., Sue, C., Valla, P.G. Sternai, P., Simon-Labric, T., Gautheron, C., Cuffey, K.M., Grujic, D., Bernet, M., Martinod, J., Ghiglione, M.C., **Reiners, P.W.**, Willett, C., Shuster, D., Herman, F., Baugartner, L., Braun, J., 2024, Geodynamic and climatic forcing on late-Cenozoic exhumation of the Southern Patagonian Andes (Fitz Roy and Torres del Paine massifs), *Tectonics*, 43 (7), e2023TC007914.
- Ferguson, G., Bailey, L.R., Kim, J.-H., Osburn, M.R., **Reiners, P.W.**, Drake, H., Stevenson, B.S., and McIntosh, J.C., 2024, Acceleration of Deep Subsurface Fluid Fluxes in the Anthropocene, *Earth's Future*, doi.org/10.1029/2024EF004496.
- Bailey, L.R., **Reiners, P.W.**, Ferguson, G., McIntosh, J., Kim, J.-H., Hemming, S., 2024, Pliocene subsurface fluid flow driven by rapid erosional exhumation of the Colorado Plateau, *Geosphere*, doi.org/10.1130/GES02634.1.
- Kodama, S.T., Cox, S.E., Thomson, S.N., Hemming, S.R., Williams, T., Licht, K.J., Formica, A., **Reiners, P.W.**, 2024, Multimethod dating of ice-rafted dropstones reveals hidden localized glacial erosion in Wilkes Subglacial Basin, Antarctica, *Geosphere*, doi.org/10.1130/GES02701.1.
- Person, M., McIntosh, J.C., Kim, J.-H., Noyes, C., Bailey, L., Lingrey, S., Krantz, R., Lucero, D., **Reiners, P.W.**, Ferguson, G., 2024, Hydrologic windows into the crystalline basement and their controls on groundwater flow patterns across the Paradox Basin, western USA, *Geological Society of America Bulletin*, doi.org/10.1130/B37063.1.
- McIntosh, J., Kim, J.-H., Bailey, L., Osburn, M., Drake, H., Martini, A., **Reiners, P.**, Stevenson, B., and Ferguson, C., 2023, Burial and Denudation Alter Microbial Life at the Bottom of the Hypo-Critical Zone, *Geochemistry Geophysics Geosystems*, doi.org/10.1029/2022GC010831.
- Jaret, S.J., Rasbury, E.T., **Reiners, P.**, Spray, J.G., Thompson, L.M., Hemming, S.R., and Thompson, M.S., 2023, Extreme isotopic heterogeneity in impact melt rocks: Implications for Martian meteorites. *Geology*, doi: https://doi.org/10.1130/G50564.1.
- Huang, W., Lippert, P.C., **Reiners, P.W.**, Quade, J., Kapp, P., Ganerød, M., Guo, Z. and van Hinsbergen, D.J., 2023. Reply to comment by Zhao et al. on "Hydrothermal events in the Linzizong Group: Implications for Paleogene exhumation and paleoaltimetry of the southern Tibetan Plateau". *Earth and Planetary Science Letters*, 603, p.117973.
- Margirier, A., Strecker, M.R., **Reiners, P.W.**, Thomson, S.N., Casado, I., George, S.W. and Alvarado, A., 2023. Late Miocene exhumation of the Western Cordillera, Ecuador, driven by increased coupling between the subducting Carnegie Ridge and the South American continent. *Tectonics*, 42(1), p.e2022TC007344.
- Flowers, R.M., Zeitler, P.K., Danišić, M., **Reiners, P.W.**, Gautheron, C., Ketcham, R.A., Metcalf, J.R., Stockli, D.F., Enkelmann, E. and Brown, R.W., 2023. (U-Th)/He chronology: Part 1. Data, uncertainty, and reporting. *GSA Bulletin*, 135(1-2), pp.104-136.
- Flowers, R.M., Ketcham, R.A., Enkelmann, E., Gautheron, C., **Reiners, P.W.**, Metcalf, J.R., Danišić, M., Stockli, D.F. and Brown, R.W., 2023. (U-Th)/He chronology: Part 2. Considerations for evaluating, integrating, and interpreting conventional individual aliquot data. *GSA Bulletin*, 135(1-2), pp.137-161.
- He, J.J. and **Reiners, P.W.**, 2022. A revised alpha-ejection correction calculation for (U-Th)/He thermochronology dates of broken apatite crystals. *Geochronology*, 4(2), pp.629-640.
- Kim, J.H., Bailey, L., Noyes, C., Tyne, R.L., Ballentine, C.J., Person, M., Ma, L., Barton, M., Barton, I., **Reiners, P.W.** and Ferguson, G., 2022. Hydrogeochemical evolution of formation waters responsible for sandstone bleaching and ore mineralization in the Paradox Basin, Colorado Plateau, USA. *GSA Bulletin*, 134(9-10), pp.2589-2610.
- Cao, K., Tian, Y., van der Beek, P., Wang, G., Shen, T., **Reiners, P.**, Bernet, M. and Husson, L., 2022. Southwestward growth of plateau surfaces in eastern Tibet. *Earth-Science Reviews*, p.104160.
- Kim, J.H., Ferguson, G., Person, M., Jiang, W., Lu, Z.T., Ritterbusch, F., Yang, G.M., Tyne, R., Bailey, L., Ballentine, C. and **Reiners, P.**, 2022. Krypton-81 dating constrains timing of deep groundwater flow activation. *Geophysical Research Letters*, 49(11), p.e2021GL097618.
- Zhang, B., Chen, S.Y., Wang, Y., **Reiners, P.W.**, Cai, F.L., Speranza, F., Zhang, J.J., Zhong, D.L. and Liu, K., 2022. Crustal deformation and exhumation within the India-Eurasia oblique convergence zone: New insights from the Ailao Shan-Red River shear zone. *GSA Bulletin*, 134(5-6), pp.1443-1467.
- Huang, W., Lippert, P.C., **Reiners, P.W.**, Quade, J., Kapp, P., Ganerød, M., Guo, Z. and van Hinsbergen, D.J., 2022. Hydrothermal events in the Linzizong Group: Implications for Paleogene exhumation and paleoaltimetry of the southern Tibetan Plateau. *Earth and Planetary Science Letters*, 583, p.117390.
- Bailey, L.R., Kirk, J., Hemming, S.R., Krantz, R.W. and **Reiners, P.W.**, 2022. Eocene fault-controlled fluid flow and mineralization in the Paradox Basin, United States. *Geology*, 50(3), pp.326-330.

- Bailey, L.R., Drake, H., Whitehouse, M.J., and **Reiners**, P.W., 2022, Characteristics and Consequences of Red Bed Bleaching by Hydrocarbon Migration: A Natural Example from the Entrada Sandstone, Southern Utah, *Geochemistry, Geophysics, Geosystems*, doi: 10.1029/2022GC010465.
- Ende, M., Chanmuang, C., **Reiners**, P.W., Zamyatin, D.A., Gain, S.E.M., Wirth, R., and Nasdala, L., 2021, Dry annealing of radiation-damaged zircon: Single-crystal X-ray and Raman spectroscopy study, *Lithos*, v. 406-407, doi.org/10.1016/j.lithos.2021.106523
- Scoggin, S.H., **Reiners**, P.W., Shuster, D.L., Davis, G.H., Ward, L.A., Worthington, J.R., Nickerson, P.A., and Evenson, N.S., 2021, (U-Th)/He and 4He/3He Thermochronology of Secondary Oxides in Faults and Fractures: A Regional Perspective From Southeastern Arizona, *Geochemistry Geophysics Geosystems*, doi.org/10.1029/2021GC009905
- Drake, H. and **Reiners**, P.W., 2021, Thermochronologic perspectives on the deep-time evolution of the deep biosphere, *Proceedings of the National Academy of Sciences*, 118 (45) e2109609118, doi.org/10.1073/pnas.2109609118
- He, J., Thomson, S.N., **Reiners**, P.W., Hemming, S.R. and Licht, K.J., 2021, Rapid erosion of the central Transantarctic Mountains at the Eocene-Oligocene transition: Evidence from skewed (U-Th)/He date distributions near Beardmore Glacier, *Earth and Planetary Science Letters* v. 567, 117009, doi.org/10.1016/j.epsl.2021.117009.
- Reiners**, P.W., 2021, Thermochronology, in: Alderton, David; Elias, Scott A. (eds.) *Encyclopedia of Geology*, 2nd edition, v 6, p. 132-139. United Kingdom: Academic Press.
- Medaris Jr, L.G., Singer, B.S., Jicha, B.R., Malone, D.H., Schwartz, J.J., Stewart, E.K., Van Lankvelt, A., Williams, M.L. and **Reiners**, P.W., 2021, Early Mesoproterozoic evolution of midcontinental Laurentia: Defining the geon 14 Baraboo orogeny. *Geoscience Frontiers*, p.101174. doi.org/10.1016/j.gsf.2021.101174
- Stalder, Nadja F., Frédéric Herman, Giuditta M. Fellin, Isabelle Coutand, Germán Aguilar, Peter W. **Reiners**, and Matthew Fox, 2020, The relationships between tectonics, climate and exhumation in the Central Andes (18–36° S): Evidence from low-temperature thermochronology, *Earth-Science Reviews*: 103276, doi.org/10.1016/j.earscirev.2020.103276.
- Zapata, S., A. Patiño, A. Cardona, M. Parra, V. Valencia, P. **Reiners**, F. Oboh-Ikuenobe, and F. Genezini, Bedrock and detrital zircon thermochronology to unravel exhumation histories of accreted tectonic blocks: An example from the Western Colombian Andes, 2020, *Journal of South American Earth Sciences* 103: 102715, doi.org/10.1016/j.jsames.2020.102715
- Murray, K.E., **Reiners**, P.W., Thomson, S.N., Robert, X., and Whipple, K.X, 2019, The thermochronologic record of erosion and magmatism in the Canyonlands region of the Colorado Plateau, *American Journal of Science*, v. 319, p. 339-380, DOI 10.2475/05.2019.01.
- Karlstrom, L., Murray, K.E., and **Reiners**, P.W., 2019, Bayesian Markov-Chain Monte Carlo inversion of low-temperature thermochronology around two 8-10 m wide Columbia River Flood Basalt Dikes, *Frontiers in Earth Science*, https://doi.org/10.3389/feart.2019.00090
- Ginster, U., **Reiners**, P.W., Nasdala, L., Chanmuang, N.C., 2019, Annealing kinetics of radiation damage in zircon, *Geochimica et Cosmochimica Acta*, v. 249, p. 225-246, https://doi.org/10.1016/j.gca.2019.01.033
- Long, S.P., Heizler, M.T., Thomson, S.N., **Reiners**, P.W., Fryxell, J.E., 2018, Rapid Oligocene to early Miocene extension along the Grant Range detachment system, Nevada, U.S.A.: Insights from multi-part cooling histories of footwall rocks, *Tectonics*, https://doi.org/10.1029/2018TC005073.
- Nasdala, L. Corfu, F., Schoene, B., Tapster, S.R., Wall, C.J., Schmitz, M.D., Ovtcharova, M., Schaltegger, U., Kennedy, A.K., Kronz, A., **Reiners**, P.W., Yang, Y.-H., Wu, F.-Y., Gain, S.E.M, Griffin, W.L., Szymanowski, D., Chanmuang, C., Ende, M., Valley, J.W., Spicuzza, M.J., Wanthanachaisaeng, B., and Giester, G., 2018, GZ7 and GZ8 - Two reference materials for SIMS U-Pb geochronology, *Geostandards and Geoanalytical Research*, doi.org/10.1111/ggr.12239
- Reiners**, P.W. and Turchyn, A.V., 2018, Extraterrestrial dust, the marine lithologic record, and global biogeochemical cycles, *Geology*, v. 46(10), p. 863-866, https://doi.org/10.1130/G45040.1
- Murray, K.E., Braun, J., and **Reiners**, P.W., 2018, Toward robust interpretation of low-temperature thermochronometers in magmatic terranes, *Geochemistry, Geophysics, Geosystems*, https://doi.org/10.1029/2018GC007595
- Ginster, U., and **Reiners**, P.W., 2018, Error propagation in the derivation of noble gas diffusion parameters for minerals from step heating experiments, *Geochemistry, Geophysics, Geosystems*, https://doi.org/10.1029/2018GC007531
- Jensen, J.L, Siddoway, C.S., **Reiners**, P.W., Ault, A.K., Thomson, S.N., and Steele-MacInnis, M., 2018, Single-crystal hematite (U-Th)/He dates and fluid inclusions document widespread Cryogenian sand injection in crystalline basement, *Earth and Planetary Science Letters*, v. 500, p. 145-155. doi.org/10.1016/j.epsl.2018.08.021
- Cavazza, W., Catto, S., Zattin, M., Okay, A.I., and **Reiners**, P., 2018, Thermochronology of the Miocene Arabia-Eurasia collision zone of southeastern Turkey, *Geosphere*, https://doi.org/10.1130/GES01637.1.

- Drake, H., Whitehouse, M.J., Heim, C., **Reiners**, P.W., Tillberg, M., Hogmalm, K.J., Dopson, M., Broman, C., and Atsrom, M.E., 2018, Unprecedented 34S-enrichment of pyrite formed following microbial sulfate reduction in fractured crystalline rocks, *Geobiology*, 1-19: DOI: 10.1111/gbi.12297.
- Liu-Zeng, J., Zhang, J., McPhillips, D., **Reiners**, P., Wang, W., Pik, R., Zeng, L., Hoke, G., Xie, K., Xiao, P., Zheng, D., Ge, Y., 2018, Multiple episodes of fast exhumation since Cretaceous in southeast Tibet, revealed by low-temperature thermochronology, *Earth and Planetary Science Letters*, v. 490, p. 62-76.
- Reiners**, P.W., Carlson, R.W., Renne, P.R., Cooper, K.M., Granger, D.E., McLean, N.M., and Schoene, B., 2018, *Geochronology and Thermochronology*, Wiley, 480 pp., ISBN: 978-1-118-45585-2.
- Garcia, V.H., **Reiners**, P.W., Shuster, D.L., Idelman, B., and Zeitler, P.K., 2018, Thermochronology of sandstone-hosted secondary Fe- and Mn-oxides near Moab, Utah: Record of paleo-fluid flow along a fault, *Geological Society of America Bulletin*, v.130, 93-113, doi:10.1130/B31627.1
- Guenthner, W.R., **Reiners**, P.W., Drake, H., and Tillberg, M., 2017, Zircon, titanite, and apatite (U-Th)/He ages and age-eU correlations from the Fennoscandian Shield, southern Sweden, *Tectonics*, v. 36, p. 1254–1274, doi: 10.1002/2017TC004525.
- Tate, G.W., McQuarrie, N., Tiranda, H., van Hinsbergen, D.J.J., Harris, R., Zachariasse, W.J., Fellin, M.G., **Reiners**, P.W., and Willett, S.D., 2017, Reconciling regional continuity with local variability in structure, uplift and exhumation of the Timor orogen, *Gondwana Research*, v. 49, p. 364-386.
- McDermott, R.G., Ault, A.K., Evans, J.P., and **Reiners**, P.W., 2017, Thermochronometric and textural evidence for seismicity via asperity flash heating on exhumed hematite fault mirrors, Wasatch fault zone, UT, USA, *Earth and Planetary Science Letters*, v. 471, p. 85-93.
- Loope, D., Kettler, R., Murray, K., Pederson, J., and **Reiners**, P., 2016, Sandstones and Utah's canyon country: Deposition, diagenesis, exhumation, and landscape evolution, *GSA Field Guides*, v. 44, p. 41-71.
- Nasdala, L., Corfu, F., Valley, J.W., Spicuzza, M.J., Wu, F.-Y., Li, Q.-L., Yng, Y.-H., Fisher, C., Munker, C., Kennedy, A.K., **Reiners**, P.W., Kronz, A., Wiedenbeck, M., Wirth, R., Chanmuang, C., Zeug, M., Vaczi, T., Norberg, N., Hager, T., Kroner, A., and Hofmeister, W., 2016, Zircon M127 – A Homogeneous Reference Material for SIMS U–Pb Geochronology Combined with Hafnium, Oxygen and, Potentially, Lithium Isotope Analysis, *Geostandards and Geoanalytical Research*, v. 40(4), p. 457-475.
- Orme, D.A., Guenther, W.R., Laskowski, A.K., and **Reiners**, P.W., 2016, Long-term tectonothermal history of Laramide basement from zircon-He age-eU correlations, *Earth and Planetary Science Letters*, v. 453, p. 119-130.
- Zhang, H., Oskin, M.E., Liu-Zeng, J., Zhang, P., **Reiners**, P.W., and Xiao, P., 2016, Pulsed exhumation of interior eastern Tibet: Implications for relief generation mechanisms and the origin of high-elevation planation surfaces, *Earth and Planetary Science Letters*, v. 449, p. 176-185.
- Ault, A.K., Frenzel, M., **Reiners**, P.W., Woodcock, N.H., and Thomson, S.N., 2016, Record of paleofluid circulation in faults revealed by hematite (U-Th)/He and apatite fission-track dating: An example from Gower Peninsula fault fissures, *Wales, Lithosphere*, doi: 10.1130/L522.1.
- Murray, K.E., **Reiners**, P.W., and Thomson, S.N., 2016, Rapid Pliocene–Pleistocene erosion of the central Colorado Plateau documented by apatite thermochronology from the Henry Mountains, *Geology*, v. 44, p. 483-486, doi: 10.1130/G37733.1.
- Guenther, W.R., **Reiners**, P.W., and Chowdhury, U., 2016, Isotope dilution analysis of Ca and Zr in apatite and zircon (U-Th)/He chronometry, *Geochemistry Geophysics Geosystems*, doi: 10.1002/2016GC006311.
- Ault, A.K., **Reiners**, P.W., Evans, J.P., and Thomson, S.N., 2015, Linking hematite (U-Th)/He dating with the microtextural record of seismicity in the Wasatch fault damage zone, Utah, USA, *Geology*, v. 43 no. 9 p. 771-774, doi:10.1130/G36897.1.
- Orme D.A., **Reiners**, P.W., Hourigan, J.K., and Carrapa, B. 2015, Effects of inherited cores and magmatic overgrowths on zircon (U-Th)/He ages and age-eU trends from Greater Himalayan sequence rocks, Mt. Everest region, Tibet, *Geochemistry, Geophysics, Geosystems*, doi: 10.1002/2015GC005818.
- Long, S.P., Thomson, S.N., **Reiners**, P.W., and Di Fiori, R.V., 2015, Synorogenic extension localized by upper-crustal thickening: An example from the Late Cretaceous Nevadaplano, *Geology*, v. 43, p. 351-354, doi: 10.1130/G36431.1.
- Reiners**, P.W., Thomson, S.N., Vernon, A., Willett, S.D., Zattin, M., Einhorn, J., Gehrels, G., Quade, J., Pearson, D., Murray, K.E., and Cavazza, W., 2015, Low-temperature thermochronologic trends across the central Andes, 21°S–28°S, in DeCelles, P.G., Ducea, M.N., Carrapa, B., and Kapp, P.A., eds., *Geodynamics of a Cordilleran Orogenic System: The Central Andes of Argentina and Northern Chile: Geological Society of America Memoir 212*, p. 215–249, doi:10.1130/2015.1212(12).

- Evenson, N.S., **Reiners**, P.W., Spencer, J., and Shuster, D.L., 2014, Hematite and Mn-oxide (U-Th)/He dates from the Buckskin-Rawhide detachment system western Arizona: Gaining insights into hematite (U-Th)/He systematics, *American Journal of Science*, v. 314, p. 1373-1435, doi:10.2475/10.2014.01.
- Murray, K.E., Orme, D.A., and **Reiners**, P.W., 2014, Effects of U–Th-rich grain boundary phases on apatite helium ages, *Chemical Geology*, v. 390, p. 135–151, <http://dx.doi.org/10.1016/j.chemgeo.2014.09.023>.
- Simon-Labric, T., Brocard, G.Y., Teyssier, C., van der Beek, P.A., **Reiners**, P.W., Shuster, D.L., Murray, K.E., and Whitney, D.L., 2014, Low-temperature thermochronologic signature of range-divide migration and breaching in the North Cascades, *Lithosphere*, doi:10.1130/L382.1.
- Pierce, E.L., Hemming, S.R., Williams, T.W., van de Flierdt, T., Thomson, S.N., **Reiners**, P.W., Gehrels, G.E., Brachfeld, S.A., and Goldstein, S.L., 2014, A comparison of detrital U-Pb zircon, $40\text{Ar}/39\text{Ar}$ hornblende, and $40\text{Ar}/39\text{Ar}$ biotite ages in marine sediments off East Antarctica: Implications for the geology of subglacial terrains and provenance studies, *Earth Science Reviews*, doi: 10.1016/j.earscirev.2014.08.010.
- Guenther, W.R., **Reiners**, P.W., DeCelles, P.G., and Kendall, J., 2014, Sevier belt exhumation in central Utah constrained from complex zircon (U-Th)/He data sets: Radiation damage and He inheritance effects on partially reset detrital zircons *Geological Society of America Bulletin*, doi:10.1130/B31032.1.
- Guenther, W.R., **Reiners**, P.W., and Tian, Y., 2014, Interpreting date–eU correlations in zircon (U-Th)/He datasets: a case study from the Longmen Shan, China, *Earth and Planetary Science Letters*, v. 403, p. 328–339, doi: 10.1016/j.epsl.2014.06.050.
- Reiners**, P.W., Chan, M.A., Evenson, N.S., 2014, (U-Th)/He geochronology and chemical compositions of diagenetic cement, concretions, and fracture-filling oxide minerals in Mesozoic sandstones of the Colorado Plateau, *Geological Society of America Bulletin*, v. 126, no. 9-10, p. 1363-1383, doi:10.1130/B30983.1.
- Braun, J., Simon-Labric, T., Murray, K., and **Reiners** P.W., 2014, Topographic relief driven by variations in surface rock density, *Nature Geoscience*, doi: 10.1038/NGEO2171.
- McQuarrie, N., Tobgay, T., Long, S.P., **Reiners**, P.W., Cosca, M.A., 2014, Variable exhumation rates and variable displacement rates: Documenting recent slowing of Himalayan shortening in western Bhutan, *Earth and Planetary Science Letters*, v. 286, p. 161–174, <http://dx.doi.org/10.1016/j.epsl.2013.10.045>.
- Pearson, D.M., Kapp, P., DeCelles, P.G., **Reiners**, P.W., Gehrels, G.E., Ducea, M.N., Pullen, A., 2013, Influence of pre-Andean crustal structure on Cenozoic thrust belt kinematics and shortening magnitude: Northwestern Argentina, *Geosphere*, v. 9, no. 6, doi:10.1130/GES00923.1.
- Zapata, S., Agustin Cardona, Camilo Montes, V. Valencia, J. Vervoort, and P. **Reiners**. "Provenance of the Eocene Soebi Blanco formation, Bonaire, Leeward Antilles: correlations with post-Eocene tectonic evolution of northern South America." *Journal of South American Earth Sciences* 52 (2014): 179-doi.org/10.1016/j.jsames.2014.02.009.
- Carrapa, B., Reyes-Bywater, S., Safipour, R., Sobel, E.R., Schoenbohm, L.M., DeCelles, P.G., **Reiners** P.W., Stockli, D., 2013, The effect of inherited paleotopography on exhumation of the Central Andes of NW Argentina, *Geological Society of America Bulletin*, doi:10.1130/B30844.1.
- Simon-Labric, T., Brocard, G.Y., Teyssier, C., van der Beek, P.A., Fellin, M.G., **Reiners**, P.W., and Authemayou, C., 2013, Preservation of contrasting geothermal gradients across the Caribbean-North American plate boundary (Motagua Fault, Guatemala), *Tectonics*, v. 32, p. 993-1010, DOI: 10.1002/tect.20060.
- Guenther, W.R., **Reiners**, P.W., Ketcham, R.A., Nasdala, L., and Geister, G., 2013, Helium diffusion in natural zircon: Radiation damage, anisotropy, and the interpretation of zircon (U-Th)/He thermochronology, *American Journal of Science*, v. 313, p. 145-198, doi 10.2475/03.2013.01.
- Thomson, S.N., **Reiners**, P.W., Hemming, S.R., and Gehrels, G.E., 2013, The contribution of glacial erosion to shaping the hidden landscape of East Antarctica, *Nature Geoscience*, v. 6, p. 203-207, doi:10.1038/ngeo1722.
- Ketcham, R.A., Guenther, W.R., and **Reiners**, P.W., 2013, Geometric analysis of radiation damage connectivity in zircon, and its implications for helium diffusion, *American Mineralogist*, v. 98, p. 350-360.
- Min, K., **Reiners**, P.W., Shuster, D.L., 2013, (U-Th)/He Ages of Phosphates from St. Séverin LL6 Chondrite, *Geochimica et Cosmochimica Acta*, v. 100, p. 282-296, doi:10.1016/j.gca.2012.09.042.
- Tochilin, C.J., **Reiners**, P.W., Thomson, S., Hemming, S.R., Gehrels, G., and Pierce, E.L., 2012, Erosional history of the Prydz Bay sector of East Antarctica from detrital apatite and zircon geo- and thermochronology multidating, *Geochemistry Geophysics Geosystems*, v. 13, issue 11, doi:10.1029/2012GC004364.
- Long, S.P., McQuarrie, N., Tobgay, T., Coutand, I., Cooper, F.J., **Reiners**, P.W., Wartho, J.-A., and Hodges, K.V., 2012, Variable shortening rates in the eastern Himalayan thrust belt, Bhutan: Insights from multiple thermochronologic and geochronologic data sets tied to kinematic reconstructions, *Tectonics*, v. 31, issue 5, TC5004, doi: 10.1029/2012TC003155.

- Schoolmeesters, N., Cheadle, M., John, B., **Reiners**, P.W., Gee, J.S., and Grimes, C., 2012, The cooling history and the depth of detachment faulting at the Atlantis Massif oceanic core complex, *Geochemistry Geophysics Geosystems*, v. 13, issue 10, doi:10.1029/2012GC004314.
- Zattin, M., Andreucci, B., Thomson, S., **Reiners**, P.W. and Talarico, F.M., 2012, New constraints on the provenance of the ANDRILL AND-2A succession (western Ross Sea, Antarctica) from apatite triple dating, *Geochemistry Geophysics Geosystems*, v. 13, issue 10, doi:10.1029/2012GC004357.
- McGee, D., Quade, J., Edwards, R. L., Broecker, W. S., Cheng, H., **Reiners**, P. W., and Evenson, N., 2012, Lacustrine cave carbonates: Novel archives of paleohydrologic change in the Bonneville Basin (Utah, USA), *Earth and Planetary Science Letters*, v. 351-352, p. 182–194. doi:10.1016/j.epsl.2012.07.019
- Quade, J., **Reiners**, P., Placzek, C., Matmon, A., Pepper, M., Ojha, L., and Murray, K., 2012, Seismicity and the strange rubbing boulders of the Atacama Desert, northern Chile, *Geology*, v. 40 no. 9 p. 851-854, doi:10.1130/G33162.1.
- Pearson, D.M., P.A. Kapp, P.W. **Reiners**, G. Gehrels, M.N. Ducea, A. Pullen, J. Otamendi, and R. Alonso, 2012, Major Miocene exhumation by fault-propagation folding within a metamorphosed, early Paleozoic thrust belt: northwestern Argentina, *Tectonics*, v. 31, issue 4, doi:10.1029/2011TC003043.
- Reiners**, P.W., 2012, Paleotopography in the western U.S. Cordillera, *American Journal of Science*, v. 312, p. 81-89, doi: 10.2475/02.2012.01.
- Peyton, S.L., **Reiners**, P.W., Carrapa, B., and DeCelles, P.G., 2012, Low-temperature thermochronology of the northern Rocky Mountains, western U.S.A., *American Journal of Science*, v. 312, p. 145-212, doi: 10.2475/02.2012.03.
- Riihimaki, C.A., and **Reiners**, P.W., 2012, Empirical evidence of climate's role in Rocky Mountain landscape evolution, *Journal of Geophysical Research - Earth Surface*, v 117, F2, F02007 <http://dx.doi.org/10.1029/2011JF002137>.
- Blondes, M.S., Brandon, M.T., **Reiners**, P.W., Page, F.Z., and Kita, N.K., 2012, Generation of Forsteritic Olivine (Fo99-8) by Subsolidus Oxidation in Basaltic Flows, *Journal of Petrology*, v. 53 (5), p. 971-984, doi:10.1093/petrology/egs006.
- Rohrmann, A., Kapp, P., Carrapa, B., **Reiners**, P.W., Guynn, J., Ding, L., and Heizler, M., 2012, Thermochronologic evidence for plateau formation in central Tibet by 45 Ma, *Geology*, v. 40, p. 187-190, doi: 10.1130/G32530.1.
- Reiners**, P.W., Riihimaki, C.A., and Heffern, E.L., 2011, Clinker geochronology, the first glacial maximum, and landscape evolution in the northern Rockies, *GSA Today*, v. 21, no. 7, doi: 10.1130/G107A.1.
- Hacker, B.R., Kelemen, P.B., Rioux, M., McWilliams, M.O., Gans, P.B., **Reiners**, P.W., Layer, P.W., Söderlund, U.; Vervoort, J.D., 2011, Thermochronology of the Talkeetna intraoceanic arc of Alaska: Ar/Ar, U-Th/He, Sm-Nd, and Lu-Hf dating, *Tectonics*, v. 30, TC1011 <http://dx.doi.org/10.1029/2010TC002798>.
- Zandt, G., and **Reiners**, P.W., 2011, Lithosphere today..., *Nature*, v. 472, p. 420-421.
- Grimes, C.B., Cheadle, M.J., John, B.E., **Reiners**, P.W., and Wooden, J.L., 2011, Cooling rates and the depth of detachment faulting at oceanic core complexes: Evidence from zircon Pb/U and (U-Th)/He ages, *Geochemistry Geophysics Geosystems*, v. 12, issue 3, doi:10.1029/2010GC003391.
- Cox, S.E., Thomson, S.N., **Reiners**, P.W., Hemming, S.R., and van de Fliedert, T., 2010, Extremely low long-term erosion rates around the Gamburtsev Mountains in East Antarctica, *Geophysical Research Letters*, v. 37, issue 22, doi:10.1029/2010GL045106.
- Thomson, S.N., Brandon, M.T., Tomkin, J.H., **Reiners**, P.W., Vasquez, C., and Wilson, N.J., 2010, Glaciation as a destructive and constructive control on mountain building, *Nature*, v. 467, p. 313-317.
- Cecil, M.R., Ducea, M.N., **Reiners**, P., Gehrels, G., Mulch, A., Allen, C., and Campbell, I., 2010, Provenance of Eocene river sediments from the central - northern Sierra Nevada and implications for paleotopography, *Tectonics*, v. 29, issue 26, doi: 10.1029/2010TC002717.
- Thomson, S.N., Brandon, M.T., **Reiners**, P.W., Zattin, M., Isaacson, P.J., and Balestrieri, M.-L., 2010, Thermochronologic evidence for orogen-parallel variability in wedge kinematics during convergent orogenesis of the northern Apennines, Italy, *Geological Society of America Bulletin*, v. 122, no. 7-8 p. 1160-1179, doi: 10.1130/B26573.1.
- Guenther, W.R., Barbeau, D.L., **Reiners**, P.W., and Thomson, S., 2010, Slab window migration and terrane accretion preserved by low-temperature thermochronology of a magmatic arc, northern Antarctic Peninsula, *Geochemistry Geophysics Geosystems*, v. 11, issue 3, doi:10.1029/2009GC002765.
- Ouimet, W., Whipple, K., Royden, L., **Reiners**, P., Hodges, K., and Pringle, M., 2010, Regional incision of the eastern margin of the Tibetan Plateau, *Lithosphere*, v. 2, p. 50-63.
- Reiners**, P.W., and Shuster, D.L., 2009, Thermochronology and landscape evolution, *Physics Today*, v. 62, p. 31-36.
- Schwartz, J.J., John, B.E., Cheadle, M.J., **Reiners**, P.W., and Baines, A.G., 2009, Cooling history of Atlantis Bank oceanic core complex: Evidence for hydrothermal activity 2.6 Ma off axis, *Geochemistry Geophysics Geosystems*, Q08020, doi:10.1029/2009GC002466.

- Ali, G.A.H., **Reiners**, P.W., Ducea, M.N., 2009, Unroofing history of Alabama and Poverty Hills basement blocks, Owens Valley, California, from apatite (U-Th)/He thermochronology, *International Geology Review*, v. 51, p. 1034-1050.
- Reiners**, P.W., 2009, Nonmonotonic thermal histories and contrasting kinetics of multiple thermochronometers, *Geochimica et Cosmochimica Acta*, v. 73, p. 3612-3629.
- Carrapa, B., DeCelles, P.G., **Reiners**, P.W., Gehrels, G.E., and Sudo, M., 2009, Apatite triple dating and white mica $^{40}\text{Ar}/^{39}\text{Ar}$ thermochronology of syntectonic detritus in the Central Andes: A multiphase tectonothermal history, *Geology*, v. 37, p. 407-410.
- van der Beek, P., Van Melle, J., Guillot, S., Pecher, A., **Reiners**, P.W., Nicolescu, S., and Latif, M., 2009, Eocene Tibetan plateau remnants preserved in the northwest Himalaya, *Nature Geoscience*, v. 2, p. 364 - 368, doi: 10.1038/NNGEO503
- Riihimaki, C.A., **Reiners**, P.W., and Heffern, E.L., 2009, Climate control on Quaternary coal fires and landscape evolution, Powder River basin, Wyoming and Montana, *Geology*, v. 37, p. 255-258.
- Muceku, B, van der Beek, P., Bernert, M., **Reiners**, P., Mascle, G., and Tashko, A., 2008, Thermochronological evidence for Mio-Pliocene late orogenic extension in the north-eastern Albanides (Albania), *Terra Nova*, doi: 10.1111/j.1365-3121.2008.00803.x.
- Colgan, J.P., Shuster, D.L., and **Reiners**, P.W., 2008, Two-phase Neogene extension in the northwestern Basin and Range recorded in a single thermochronology sample, *Geology*, v. 36, p. 631-634.
- Blondes, M.S., **Reiners**, P.W., Ducea, M.N., Singer, B., and Chesley, J., 2008, Temporal-compositional trends over short and long time-scales in basalts of the Big Pine Volcanic Field, California, *Earth and Planetary Science Letters*, v. 269, p. 140-154.
- Bryan, S.E., Ferrari, L., **Reiners**, P.W., Allen, C.M., Petrone, C.M., Ramos-Rosique, A., and Campbell, I.H., 2008, New insights into crustal contributions to large-volume rhyolite generation in the mid-Tertiary Sierra Madre Occidental Province, Mexico, revealed by U-Pb geochronology, *Journal of Petrology*, v. 49, p. 47-77.
- Nasdala, L., Hofmeister, W., Norberg, N., Martinson, J.M., Corfu, F., Dörr, W., Kamo, S.L., Kennedy, A.K., Kronz, A., **Reiners**, P.W. and Frei, D., 2008. Zircon M257-a Homogeneous Natural Reference Material for the Ion Microprobe U-Pb Analysis of Zircon. *Geostandards and Geoanalytical Research*, 32(3), pp.247-265.
- Heffern, E.L., **Reiners**, P.W., Naeser, C.W., and Coates, D.A., 2007, Geochronology of clinker and implications for evolution of the Powder River Basin landscape, Wyoming and Montana, *Geological Society of America Reviews in Engineering Geology*, v. 18, p. 155-175.
- Fellin, M.G., **Reiners**, P.W., Brandon, M.T., Wuthrich, E., Balestrieri, M.L., and Molli, G., 2007, Thermochronologic evidence for the exhumational history of the Alpi Apuane metamorphic core complex, Northern Apennines, Italy, *Tectonics*, 26, TC6015, doi:10.1029/2006TC002085.
- Reiners**, P.W., Thomson, S.N., McPhillips, D., Donelick, R.A., and Roering, J.J., 2007, Wildfire thermochronology and the fate and transport of apatite in hillslope and fluvial environments, *Journal of Geophysical Research-Earth Surface*, v. 112, F04001, doi:10.1029/2007JF000759.
- Reiners**, P.W., 2007, Thermochronologic Approaches to Paleotopography, in Kohn, M.J. (Ed.), *Paleoaltimetry: Geochemical and Thermodynamic Approaches*, *Reviews in Mineralogy and Geochemistry*, v. 66, p. 243-267.
- Min, K., and **Reiners**, P.W., 2007, High temperature Mars-to-Earth transfer of meteorite ALH84001, *Earth and Planetary Science Letters*, v. 260, p. 72-85.
- Peppe, D.J. and **Reiners**, P.W., 2007, Conodont (U-Th)/He thermochronology: Initial results, potential, and problems, *Earth and Planetary Science Letters*, v. 258, p. 569-580.
- Schildgen, T.F., Hodges, K.V., Whipple, K.X., **Reiners**, P.W., and Pringle, M.S., 2007, Uplift of the western margin of the Andean plateau, revealed from canyon incision history, Southern Peru, *Geology*, v. 35, p. 523-527.
- Blondes, M.B., **Reiners**, P.W., Edwards, B.R., and Biscontini, A.E., 2007, Dating young basalts by (U-Th)/He on xenolithic zircons, *Geology*, v. 35, p. 17-20.
- Edgar, C.J., Wolff, J.A., Olin, P.H., Nichols, H.J., Pittari, A., Cas, R.A.F., **Reiners**, P.W., Spell, T.L., and Marti, J., 2007, The late Quaternary Diego Hernandez Formation, Tenerife: Volcanology of a complex cycle of voluminous explosive phonolitic eruptions, *Journal of Volcanology and Geothermal Research*, v. 160, p. 59-85.
- Harris, A.C., Dunlap, W.J., **Reiners**, P.W., Allen, C.M., Cooke, D.R., White, N.C., Campbell, I.H., and Golding, S.D., 2007, Multimillion year thermal history of a porphyry copper deposit: Application of U-Pb, $^{40}\text{Ar}/^{39}\text{Ar}$, and (U-Th)/He chronometers, Bajo de la Alumbrera copper-gold deposit, Argentina, *Mineralium Deposita*, v. 43, p. 295-314.
- Colgan, J.P. Dumitru, T.A., **Reiners**, P.W., Wooden, J.L., and Miller, E.L., 2006, Cenozoic tectonic evolution of the Basin and Range Province in northwestern Nevada, *American Journal of Science*, v. 306, p. 616-654.
- Flowers, R.M., Bowring, S.A., and **Reiners**, P.W., 2006, Low long-term erosion rates and extreme continental stability documented by ancient (U-Th)/He dates, *Geology*, v. 34, p. 925-928.

- Cecil, M.R., Ducea, M.N., **Reiners**, P.W., and Chase, C.G., 2006, Cenozoic exhumation of the northern Sierra Nevada, California, from (U-Th)/He thermochronology, *Geological Society of America Bulletin*, v. 118, p. 1481-1488.
- Hansen, K., and **Reiners**, P.W., 2006, Low temperature thermochronology of the southern East Greenland continental margin: evidence from apatite (U-Th)/He and fission track analysis and implications for intermethod calibration, *Lithos*, v. 92, p. 117-136.
- Boyce J.W., Hodges K.V., Olszewski W.J., Jercinovic M.J., Carpenter B.D., and **Reiners**, P.W., 2006, Laser microprobe (U-Th)/He geochronology, *Geochimica et Cosmochimica Acta*, v. 70, p. 3031-3039.
- Reiners**, P.W. and Brandon, M.T., 2006, Using Thermochronology to Understand Orogenic Erosion, *Annual Reviews of Earth and Planetary Science*, v. 34, p. 419-466.
- Min, K., **Reiners**, P.W., Wolff, J., Mundil, R., Winters, L.R., 2006, (U-Th)/He dating of volcanic phenocrysts with high-U-Th inclusions, Jemez Volcanic Field, New Mexico, *Chemical Geology*, v. 227, p. 223-235.
- Hu, S., Raza, A., Min, K., Kohn, B.P., **Reiners**, P.W., Ketcham, R.A., Wang, J., and Gleadow, A.J.W., 2006, Late Mesozoic and Cenozoic thermotectonic evolution along a transect from the north China craton through the Qinling orogen into the Yangtze craton, central China, *Tectonics*, 25, TC6009, doi:10.1029/2006TC001985
- Reiners**, P.W., Ehlers, T.A., and Zeitler, P.K., 2005, Past, Present, and Future of Thermochronology, in **Reiners**, P.W. and Ehlers, T.A. (Eds.), *Thermochronology, Reviews in Mineralogy and Geochemistry*, v. 58, p. 1-18.
- Reiners**, P.W., 2005, Zircon (U-Th)/He Thermochronometry, in **Reiners**, P.W. and Ehlers, T.A. (Eds.), *Thermochronology, Reviews in Mineralogy and Geochemistry*, v. 58, p. 151-176.
- Campbell, I.H., **Reiners**, P.W., Allen, C.M., Nicolescu, S., and Upadhyay, R., 2005, He-Pb double dating of detrital zircons from the Ganges and Indus Rivers: Implications for sediment recycling and provenance studies, *Earth and Planetary Science Letters*, v. 237, p. 402-432.
- Hourigan, J.K., **Reiners**, P.W., and Brandon, M.T., 2005, U-Th zonation-dependent alpha-ejection in (U-Th)/He chronometry, *Geochimica et Cosmochimica Acta*, v. 69, p. 3349-3365.
- Reiners**, P.W., Campbell, I.H., Nicolescu, S., Allen, C.M., Hourigan, J.K., Garver, J.I., Mattinson, J.M., Cowan, D.S., 2005, (U-Th)/(He-Pb) double dating of detrital zircons, *American Journal of Science*, v. 305, p. 259-311.
- Fellin, M.G., Zattin, M., Picotti, V., **Reiners**, P.W., and Nicolescu, S., 2005, Relief evolution in northern Corsica (western Mediterranean): Constraints on uplift and erosion on long-term and short-term timescales, *Journal of Geophysical Research, Earth Surface Processes*, v. 110, F01016.
- Garver, J.I., **Reiners**, P.W., Walker, L.J., Ramage, J.M., Perry, S.E., 2005, Implications for timing of Andean uplift based on thermal resetting of radiation-damaged zircon in the Cordillera Huayhuash, northern Peru, *Journal of Geology*, v. 113, n. 2, p. 117-138.
- Ducea, M.N., Valencia, V.A., Shoemaker, S., **Reiners**, P.W., DeCelles, P.G., Campa, M.F., Moran-Zenteno, D., and Ruiz, J., 2004, Rates of sediment recycling beneath the Acapulco trench: Constraints from (U-Th)/He thermochronology, *Journal of Geophysical Research*, v. 109, doi:10.1029/2004JB003112.
- Min, K., **Reiners**, P.W., Nicolescu, S., and Greenwood, J.P., 2004, Age and temperature of shock metamorphism of Martian meteorite Los Angeles, from (U-Th)/He thermochronometry, *Geology*, v. 32, p. 677-680.
- Spotila, J.A., Buscher, J.T., Meigs, A.J., and **Reiners**, P.W., 2004, Long-term glacial erosion of active mountain belts: Example of the Chugach-St. Elias Range, Alaska, *Geology*, v. 32, p. 501-504.
- Reiners**, P.W., Spell, T.L., Nicolescu, S., and Zanetti, K.A., 2004, Zircon (U-Th)/He thermochronometry: He diffusion and comparisons with $^{40}\text{Ar}/^{39}\text{Ar}$ dating, *Geochimica et Cosmochimica Acta*, v. 68, p. 1857-1887.
- Spotila, J.A., Bank, G.C., **Reiners**, P.W., Naeser, C.W., Naeser, N.D., and Henika, B.S., 2004, Origin of the Blue Ridge escarpment along the passive margin of Eastern North America, *Basin Research*, v. 16, p. 41-63.
- Kogiso, T., Hirschmann, M.M., and **Reiners**, P.W., 2004, Length scales of mantle heterogeneities and their relationship to ocean island basalt geochemistry, *Geochimica et Cosmochimica Acta*, v. 68, p. 345-360.
- Nasdala, L., **Reiners**, P.W., Garver, J.I., Kennedy, A.K., Stern, R.A., Balan, E., and Wirth, R., 2004, Incomplete retention of radiation damage in zircon from Sri Lanka, *American Mineralogist*, v. 89, p. 219-231.
- Reiners**, P.W., Ehlers, T.A., Mitchell, S.G., and Montgomery, D.R., 2003, Coupled spatial variations in precipitation and long-term erosion rates across the Washington Cascades, *Nature*, v. 426, p. 645-647.
- Mitchell, S.G., and **Reiners**, P.W., 2003, Influence of wildfires on apatite and zircon (U-Th)/He ages, *Geology*, v. 31, p. 1025-1028.
- Rahl, J.M., **Reiners**, P.W., Campbell, I.H., Nicolescu, S., and Allen, C.M., 2003, Combined single-grain (U-Th)/He and U/Pb dating of detrital zircons from the Navajo Sandstone, Utah, *Geology*, v. 31, p. 761-764.

- Reiners, P.W., Zhou, Z., Ehlers, T.A., Xu, C., Brandon, M.T., Donelick, R.A., and Nicolescu, S., 2003, Post-orogenic evolution of the Dabie Shan, eastern China, from (U-Th)/He and fission-track dating, American Journal of Science, v. 303, p. 489-518.**
- Reiners, P.W., Ehlers, T.A., Garver, J.I., Mitchell, S.G., Montgomery, D.R., Vance, J.A., and Nicolescu, S., 2002, Late Miocene exhumation and uplift of the Washington Cascades, Geology, v. 30, p. 767-770.**
- Reiners, P.W., 2002, (U-Th)/He chronometry experiences a renaissance, Eos, v. 83, p. 21-27.**
- Reiners, P.W., 2002, Temporal-compositional trends in intraplate basalt eruptions: Implications for mantle heterogeneity and melting processes, Geochemistry Geophysics Geosystems, v. 3(2), paper 2001GC000250.**
- Reiners, P.W., Farley, K.A., and Hickey, H.J., 2002, He diffusion and (U-Th)/He thermochronometry of zircon: Initial results from Fish Canyon Tuff and Gold Butte, Nevada, Tectonophysics, v. 349, p. 297-308.**
- Ghiorso, M.S., Hirschmann, M.M., **Reiners, P.W., and Kress, V.C., III, 2002, pMELTS: A revision of MELTS for improved calculation of phase relations and major element partitioning related to partial melting of the mantle to 3 GPa, Geochemistry Geophysics Geosystems, paper 10.1029/2001GC000217.**
- Crowley, P.D., **Reiners, P.W., Reuter, J.M., and Kaye, G.D., 2002, Laramide exhumation of the Bighorn Mountains, Wyoming: An apatite (U-Th)/He thermochronology study, Geology, v. 30, p. 27-30.**
- Kirby, E., **Reiners, P.W., Krol, M., Hodges, K., Whipple, K., Farley, K., Tang, W., and Chen, Z., 2002, Late Cenozoic uplift and landscape evolution along the eastern margin of the Tibetan Plateau: Inferences from $^{40}\text{Ar}/^{39}\text{Ar}$ and (U-Th)/He thermochronology, Tectonics, 10.1029/2000TC001246.**
- Reiners, P.W., and Farley, K.A., 2001, Influence of crystal size on apatite (U-Th)/He thermochronology: An example from the Bighorn Mountains, Wyoming, Earth and Planetary Science Letters, v. 188, p. 413-420.**
- Balestrieri, M.L., Bernet, M., Brandon, M.T., Picotti, V., **Reiners, P., and Zattin, M., 2003, Pliocene and Pleistocene exhumation and uplift of two key areas of the Northern Apennines, Quaternary International, v. 101-102, p. 67-73.**
- Spotila, J.A., Farley, K.A., Yule, J.D., and **Reiners, P.W., 2001, Near-field transpressive deformation along the San Andreas fault zone in southern California, based on exhumation constrained by (U-Th)/He dating, Journal of Geophysical Research, v. 106, p. 30909-30929.**
- Reiners, P.W., Brady, R., Farley, K.A., Fryxell, J.E., Wernicke, B.P., and Lux, D., 2000, Helium and argon thermochronometry of the Gold Butte block, South Virgin Mountains, Nevada, Earth and Planetary Science Letters, v. 178, p. 315-326.**
- Reiners, P.W., P.E. Hammond, J.M. McKenna, and R.A. Duncan, 2000, Young basalts of the central Washington Cascades, flux melting of the mantle, and geochemical signatures of primitive arc magmas, Contributions to Mineralogy and Petrology, v. 138, p. 249-264.**
- Lassiter, J.C., Hauri, E.H., **Reiners, P.W., and Garcia, M.O., 2000, Generation of Hawaiian post-erosional lavas by melting of a mixed lherzolite/pyroxenite source: Implications for the chemical evolution of oceanic lithosphere, Earth and Planetary Science Letters, v. 178, p. 269-284.**
- Reiners, P.W. and K.A. Farley, 1999, He diffusion and (U-Th)/He thermochronometry of titanite, Geochimica et Cosmochimica Acta, v. 63, p. 3845-3859.**
- Reiners, P.W., B.K. Nelson, and Izuka, S.K., 1999, Geologic and petrologic evolution of the Lihue Basin and eastern Kauai, Hawaii, Geological Society of America Bulletin, v. 111, p. 674-685.**
- Reiners, P.W. and B.K. Nelson, 1998, Temporal-compositional-isotopic trends in rejuvenated-stage volcanics of Kauai, Hawaii, and implications for mantle melting processes, Geochimica et Cosmochimica Acta, v. 62, p. 2347-2368.**
- Reiners, P.W., 1998, Reactive melt transport in the mantle and geochemical signatures of mantle-derived magmas, Journal of Petrology, v. 39, p. 1039-1061.**
- Reiners, P.W., B.K. Nelson, and S.W. Nelson, 1996, Evidence for multiple mechanisms of crustal contamination of magma from compositionally zoned plutons and associated ultramafic intrusions of the Alaska Range, Journal of Petrology, v. 36, p. 261-292.**
- Reiners, P.W., B.K. Nelson, and M.S. Ghiorso, 1995, Assimilation of felsic crust and its partial melt by basaltic magma: Thermal limits and extents of crustal contamination, Geology, v. 23, p. 563-566.**
- Farley, K.A., P.W. **Reiners,** and V. Nenow, 1999, An apparatus for high precision in-vacuum noble gas diffusion measurements from minerals, Analytical Chemistry, v. 71, p. 2059-2061.
- Holcomb, R.T., B.K. Nelson, P.W. **Reiners,** and N.-L. Sawyer, 2000, Overlapping volcanoes: The origin of Hilo Ridge, Hawaii, Geology, v. 28, p. 547-550.
- Holcomb, R.T., P.W. **Reiners,** B.K. Nelson, and N.-L. Sawyer, 1997, Isotopic evidence for two shield volcanoes on the Island of Kauai, Geology, v. 25, p. 811-814.
- Bice, D.M., C.R. Newton, S. McCauley, P.W. **Reiners,** and C.A. McRoberts, 1992, Shocked quartz at the Triassic-Jurassic boundary in Italy, Science, v. 255, p. 443-446.