

Blair Schoene

Professor

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Education

Massachusetts Institute of Technology

Ph.D., Geology, September 2006

Thesis title: "A thermotectonic framework for the growth and stabilization of the eastern Kaapvaal craton, Southern Africa"

Thesis advisor: Samuel A. Bowring

The Colorado College

B.A., Geology, May 1999

Thesis title: "Field, petrographic, and geochemical characterization of stratigraphy at the base of the Vinalhaven pluton, Vinalhaven Island, Maine"

Thesis advisor: David P. Hawkins

Professional Appointments

Professor of Geosciences

Princeton University

(2021-)

Associate Professor of Geosciences, with tenure

Princeton University

(2016-2021)

Assistant Professor of Geosciences

Princeton University

(2009-2016)

Post-Doctoral Research Fellow

Section of Earth Sciences, University of Geneva

(2006-2009)

Visiting Assistant Professor

Department of Geology, The Colorado College

(2006)

Teaching

Princeton University

GEO372, Rocks. An introduction to petrology.

Schedule: two 80-minute lecture periods and one 3-hour lab/week, 2 weekend and 1 one-week field trip

GEO362, Earth History

Schedule: two 80-minute lectures/week; no lab; co-taught with John Higgins

GEO373, Structural Geology.

Schedule: two 80-minute lecture periods and one 3-hour lab/week, 2 weekend and 1 one-week field trip

GEO402, Methods of Chemical and Isotopic Analysis in the Earth Sciences

Schedule: two 80-minute lectures and lab

GEO464, Quantifying Geologic Time.

Schedule: two 80-minute lecture periods/week; no lab

GEO556, Formation and Evolution of Continental Lithosphere

Schedule: two 80-minute lecture periods/week; no lab

GEO505, GEO506; Essentials of Geoscience

Schedule: one 80-minute lecture, one 3-hour discussion period

For two weeks of the semester only

Pre-Princeton teaching experience

Course Instructor: University of Geneva (2007-2009)

Taught and assisted the following undergraduate courses:

Excursion au Terrain III^{me} année (field course in the alps)

Isotopes Radiogenique III^{me} année (Isotope Geology)

Cartographie au Terrain (field mapping course; Fall 2008)

Introduction à Petrologie II^{me} année (Introduction to Petrology; Fall 2008)

Visiting Assistant Professor: The Colorado College (Fall 2006)

Introduction to Geology

Geologic Time and the Rates of Earth Processes

Teaching Assistant: *Environmental Earth Science* - M.I.T. (Fall 2002, 2003, 2005)

Teaching Assistant: *Field Geology* - Univ. Cape Town, South Africa (Summer 2004)

Teaching Assistant: *Isotope Geology* - M.I.T. (Spring 2004, 2006)

Teaching Assistant: *Introduction to Petrology*- M.I.T. (Fall 2004)

Paraprofessional: Fulltime teaching assistant – The Colorado College (1999-2000)

Laboratories Overseen – Princeton University

Director: Princeton Radiogenic Isotope Geology Laboratory (est. 2011)

Home to ultra-clean labs for pure U-Pb, Rb-Sr, Sm-Nd isotope separation and analysis and geochronology, as well as sample preparation for major and trace element analysis

Hosts two IsotopX PhoeniX62 Thermal Ionization Mass Spectrometers

Shared access to a Thermo iCAP quadrupole ICPMS, Agilent QQQ ICPMS, ESI laser

Equipped with rock processing and mineral separation facilities

Current members include 4 PhD students, 2 Postdocs, 1 researcher

Awards/Honors

Recipient of the Reginald Daly Lectureship award from AGU	2023
Herbette Foundation Fellow, Univ. of Lausanne, Switzerland	2023
The F.W. Clarke Award – Geochemical Society	2013
This is the highest honor given by the Geochemical Society to an early career scientist: http://www.geochemsoc.org/awards/fwclarkeaward/	
Award for excellence in teaching - E.A.P.S., M.I.T.	6/03
M.I.T. Walter A. Rosenblith Fellowship	2000-2001
Rocky Mountain Association of Geologists Outstanding Student Award	5/99
Phi Beta Kappa academic honorary society	5/99
Cum laude academic honors - Colorado College	5/99
Academic distinctions in Geology - Department of Geology - Colorado College	5/99
The Darrel M. Putman Scholarship award in geology - Colorado College	5/98
Dean's List - Colorado College	1997-1999

Service to Princeton University

Geosciences Faculty Search Officer 2023-

Director of Graduate Studies, Department of Geosciences, 2017-2022

Chair of the CPUC Resources committee, 2017-2021; Member 2016-2022

This committee hears and discusses concerns from the community regarding investment of Princeton's endowment, with the possibility of divestment in certain companies, if they are determined to be at odds with the values of the University.

Member of the Environmental Sciences Building design committee, 2018-2019

Member of the Environmental Studies working group, 2016-2017

This committee is charged with the task of envisioning a new environmental institute at Princeton that includes departments around campus, including the potential planning and design of a new Natural Sciences building on campus.

Faculty fellow for the Princeton Bridge Year program, 2015-2017

This program sends students abroad to different nations around the world for service oriented activities prior to a student's freshman year.

<http://www.princeton.edu/bridgeyear/>

Princeton University Priorities Committee, 2012-2014.

This committee is responsible for overseeing additions and increases to the University's annual budget. It meets twice a week from October-January each year.

<http://www.princeton.edu/provost/priorities-committee/>

Co-Leader of 14-day alumni trip "Rocks and Docs" to Nepal, Spring 2012

This trip was co-sponsored by Princeton Journeys (<http://alumni.princeton.edu/journeys/>) and Outdoor Action (<http://www.princeton.edu/~oa/index.shtml>), and took ~20 alumni trekking to the basecamp of Annapurna. I gave daily lectures on geology and my father ('68) gave daily lectures on high altitude pulmonology.

Service to Geosciences at Princeton University

Seminar Series Organizer F2023-

Faculty Search Officer F2023-

Associate Chair, Department of Geosciences, 2023

Director of Graduate Studies, 2017-2022

Chair of Geology faculty search committee, 2021-2022

Member of Geology faculty search committee, 2018-2019

Head, Hess Fellowship search committee 2016-2017

Graduate work committee 2012-

Climate faculty hiring committee 2015-2016

Undergraduate work committee 2009-2012

Hess Fellowship committee 2009

Undergraduate advising:

Academic advisor

Member, advising committee, fall 2009-spring 2012

Advised 4 junior majors, 2009-2010

Advised 7 junior, 3 senior majors, 2010-2011

Advised 4 junior, 4 senior majors, 2011-2012

Junior Projects

Co-advisor, Mike Eddy, Fall 2009, Cambrian carbonate geochemistry

Advisor, Nick Burton, Fall 2011, Secular variation in MORB geochemistry

Advisor, Jeff Gronewold, Fall 2011, Volcanic-plutonic geochemical relations

Advisor, Andrea Beale, Fall 2012, U-Pb geochronology of the Elba plutonic suite

Advisor, Lauren Lewis, Spring 2013, relationship between rock age and vertical relief

Advisor, Yuem Park, Fall 2013, Granulites from the Ross Lake Shear zone

Co-advisor Preston Kemeny, Spring 2014, geochemistry of redboles, Deccan traps, India

Advisor, Ryan Barker, Spring 2015, probing CA-TIMS with Raman and geochemistry

Co-Advisor, Adrian Tasistro-Hart, Fall 2015, Spring 2016, Cyclostratigraphic constraints on late Cretaceous lacustrine deposits in Bolivia

Advisor, Josh Murray, Fall 2016, Spring 2017, Volatile estimates from olivine-hosted melt inclusions in the Columbia River Basalts, Pacific Northwest

Advisor, Kyle Duffey, Fall 2017, Method development of hand-held XRF geochemical analysis

Advisor (with postdoc Ayla Pamukçu), Enrique del Castillo, Fall 2017, Using Synchrotron X-ray tomography to investigate crystal size distributions in the Bishop Tuff

Advisor, Enrique del Castillo, Spring 2018, revisiting the critical taper model for orogenic wedge development using an automated computational approach

Advisor, Kyle Duffy, Spring 2018, evaluating handheld XRF technology for geochemical analysis

Advisor, Hanna Szabo, Fall 2020, building a geochemical database for megacrystic granites

Advisor (with postdoc Alyssa McKanna), Isabel Koran, Fall 2020, thermochronologic modeling of the Grenville Orogeny in the New Jersey highlands

Advisor (with postdoc Alyssa McKanna), Isabel Koran, Spring 2021, micro-CT imaging of zircon pre- and post-leaching

Reader on 3 JPs 2009-2010; 5 JPs 2010-2011; 5 JPs 2011-2012; 4 JPs 2012-2013, 4 JPs 2013-2014, 4 JPs 2014-2015, 5 JPs 2015-2016, 3 JPs fall 2016, 2 JPs Spring 2017, 2 JPs fall 2017, 4 JPs spring 2018, 3 JPs fall 2018, 3 JPs spring 2019, 2 JPs fall 2019, 2 JPs fall 2020, 1 JP spring 2021

Senior theses

Primary advisor, Mike Eddy, 2010-2011, geologic evolution of the Pimple Hills, NJ

Primary advisor, Jacquie Nesbit 2011-2012, Carbonate thermometry of Grenville rocks
 Primary advisor, Jeff Gronewold 2012-2013, U-Pb geochronology and geochemistry of mafic enclave suites from the Bergell Pluton
 Primary advisor, Lauren Lewis, 2013-2014, geochronology of nelsonite ore deposits, NW New Jersey
 Primary advisor, Trevor Klee, 2014-2015, mass balance in an island arc
 Primary advisor, Yuem Park, 2014-2015, structural history of the Ross Lakes Shear Zone, Cascade Mountains, WA
 Primary advisor, Ryan Barker, 2015-2016, U-Pb TIMS-TEA geochronology and new chronostratigraphy for the Cañadon Asfalto Basin, Central Patagonia
 Co-Advisor, Adrian Tasistro-Hart, 2016-2017, Cyclostratigraphic and geochronologic constraints on late Cretaceous lacustrine deposits in Bolivia
 Co-Advisor, Ali Champion, 2016-2017, Far-field stratigraphic records of the late Paleozoic ice-age.
 Primary Advisor, Joshua Murray, 2017-2018, Assessing volatile contents of the Columbia River Basalts
 Primary Advisor, Enrique del Castillo, 2018-2019, revisiting the critical taper model
 Primary Advisor, Liam O'Connor, 2019-2020, tracking Deccan volcanic zircons with zircon geochemistry and isotopes
 Advisor, Hanna Szabo, 2021-2022, K-isotope measurements in K-feldspar megacrysts
 Advisor (with postdoc Alyssa McKanna), Isabel Koran, 2021-2022, isotopic, petrographic and geochemical characterization of IOA deposits in the New Jersey highlands

Reader 1 ST Spring 2010; 3 ST Spring 2011; 2 ST Spring 2012; 3 ST Spring 2013; 3 ST Spring 2014; 2 ST Spring 2015; 2 ST Spring 2016, 2 ST Spring 2017, 1 ST Spring 2018, 2 ST Spring 2019, 4 ST Spring 2020

Graduate student advising:

Primary or co-advisor for 5 PhD students

Jon Husson ('14, defended 9/14); thesis title: Constraining timing and origin of unusual carbon cycle dynamics in the terminal Proterozoic and Middle Paleozoic eons. *Now Assistant Professor at the University of Victoria.*

Brenhin Keller ('16, defended 9/16); thesis title: Geochemical evolution of Earth's continental crust. *Now Assistant Professor at Dartmouth College.*

Kyle Samperton ('17, defended 2/17); thesis title: Portrait of a pluton: Magmatic perspectives from the mid-crustal Bergell Intrusion, Central Alps. *Now staff scientist at Lawrence-Livermore National Laboratory.*

Scott MacLennan ('19, defended 9/19); thesis title: geochronologic constraints on uniformitarian processes through Earth History. *Now professor at the University of Witswatersrand, Johannesburg, South Africa*

Jennifer Kasbohm ('20, defended 5/20); thesis title: Calibrating Archean and Miocene Large Igneous Province Emplacement and Geologic Timescales with High-Precision U-Pb Zircon Geochronology. *Now postdoc at Yale University.*

Elena Watts ('24, defended 12/4); thesis title: Time as a symptom: Geochronologic and geochemical insights into silicic intrusive magmatism. *Now a risk analyst at MunichRe*

Rilla McKeegan ('24, MSc); thesis title: Sediment outgassing as a source of cryptic CO₂ in the Deccan Traps. *Now a science teacher in Chicago*

Travis Steiner-Leach ('25)

Theo Green ('26)

Thesis reader for Swanson-Hysell ('11), Rose ('12), Eichelberger ('14), Tate ('14), Husson ('14), Keller ('16), Samperton ('17), MacLennan ('19), Kasbohm ('20), Santiago-Ramos ('20), Murphy ('23)

Thesis committees and generals exams (* indicates generals committee only; date indicates that of the generals exam, but thesis committee duties are for duration of PhD)

Joined thesis committee post generals (Swanson-Hysell, Rose, Tobgay)

3 generals exam/thesis committees 2009-2010 (Eichelberger, Zhu*, Finklestein)

4 generals exams/thesis committee 2010-2011 (Husson, Tate, Yau, Ellis*)

5 generals exams/thesis committee 2011-2012 (Samperton, Keller, Dyer, Punekar, Wang)

1 generals exam/thesis committee 2012-2013 (Mateo)

4 generals exam/thesis committee 2013-2014 (McRose*, Smith*, Mateo)

3 generals exam/thesis committee 2014-2015 (MacLennan, Kasbohm, Santiago-Ramos)

3 generals exam/thesis committee 2015-2016 (Dutta, Kast, Harris*)

1 generals exam/thesis committee 2016-2017 (Murphy)

4 generals exam/thesis committee 2017-2018 (Burky, Howes, Kim, Tracey*)

3 generals exam/thesis committee 2018-2019 (Carrol*, Han, Intrator*)

5 generals exam/thesis committee 2019-2020 (Manzuk, Rao, Sawade, Song, Leach)

4 generals exam/thesis committee 2020-2021 (Watts, Ocampo, Nadeau, Lee)

4 generals exam/thesis committee 2021-2022 (Kunes, Copley, Sahwell, Scherr)

13 generals exam/thesis committees 2022-2023 (Green, McKeegan, Howes, Manzuk, Song, Han, Scherr, Kracht, Kim, Nadeau, Murphy)

Postdoctoral scholar advising:

Mélanie Barboni (2011-2014; now faculty at Arizona State Univ.)
Ayla Pamukcu (2015-2017; now faculty at Stanford Univ.)
Mike Eddy (2016-2019; now faculty at Purdue Univ.)
Dawid Szymanowski (2019-2022; now senior researcher at ETH Zurich)
Alyssa McKanna (née Anderson) (2019-2022; now postdoc at Los Alamos National Lab)
Sean Gaynor (2022-2024; now scientist at the USGS)
Francisco Apen (2022-2024; now assistant professor at N. Arizona University)

External thesis committees/readers:

Julien Storck, ETH Zurich, spring 2019
Allen Schaen, University of Wisconsin Madison, defended spring 2017
Mike Eddy, MIT, 2016
Barbara Raschbacher, Univ. S. California, 2014
Magdalena Huyskens, Australia National Univ., 2014
Mélanie Barboni, Univ. Lausanne, Switzerland, 2011

Editor/Reviewer

Journal editorial activity:

Associate Editor: Science Advances (June 2015-)
Acting Deputy Editor: Science Advances (Oct 2018-Dec 2018)
Editorial Advisory Board: Earth and Planetary Science Letters (2012-2023)

Reviewer for international journals:

American Journal of Science
American Mineralogist
Chemical Geology
Contributions to Mineralogy and Petrology
Earth and Planetary Science Letters
Elements
Encyclopedia of Earth Sciences, Geochronology
Geochemistry, Geophysics and Geosystems
Geochimica et Cosmochimica Acta
Geological Magazine

Geological Society of America Bulletin
Geology
Journal of Petrology
Journal of Asian Earth Sciences
Lithos
Nature
Nature Communications
Nature Geoscience
Precambrian Research
Proceedings of the National Academy of Sciences
Science
Science Advances
Tectonics

Reviewer for NSF programs:

EAR Instrumentation and facilities
EAR Major Research Instrumentation
EAR Petrology and Geochemistry
EAR Sedimentology and Paleobiology
EAR Tectonics
EAR Integrated Earth Systems
PLR (polar program)

Reviewer foreign NSF programs:

Swiss National Science Foundation (SNF)
Dutch National Science Foundation (NWO)
Canadian National Science Foundation (CRC)
Canadian Foundation for Innovation (CFI)

Outreach and Synergistic Activities (last 5 years)

In the fall of 2023 I began leading an initiative to found a National Geochronology Consortium, to be funded by NSF, which could include the formation of a new NSF program in GEO. Wrote white paper with group of 5 others, meeting with NSF in January for next steps.

I am currently involved in organizing several geochronology related workshops and conferences: An Earthrates-funded workshop on the intercalibration of the U-Pb and $^{40}\text{Ar}/^{39}\text{Ar}$ geochronometers, the first installment was held before GSA in fall 2018; a two-stage workshop focused on refining precision and accuracy between a dozen ID-TIMS U-Pb labs

around the world, funded by a joint program between Princeton University and the University of Geneva; a team of 4 people including myself have gotten approval and received funding for a series of Gordon Research Conferences, focused on Geochronology, the first of which was held in the summer of 2019, the second happened in 2023, after which it was upgraded to a full (permanent) meeting.

Organizer of NSF-funded Earthcube proposal (2016-) to develop and test digital field geology software for widespread use in the geologic community. Software will integrate acquisition and management of field data and linking of field data with other sample specific databases such as EarthChem and Geochron. Co-Organized specialist workshop in Chapel Hill, NC and organized beta-testing field trip in 2018 to the Sierra Nevada attended by 20 petrologists.

Member of shortcourse team sponsored by the Mineralogy Society of America, in tandem with release of a Reviews in Mineralogy and Geochemistry book titled "Petrochronology". Shortcourses were held at the European Geophysical Union meeting in Spring 2017 and GSA 2017.

Co-PI on an NSF-funded Earthscope student training network (AGeS), which connects graduate students with geochronology labs and provides funding for their PhD work. Students who write successful proposals (as reviewed by an external committee; first round awards were made May 2015) travel to a participating geochronology lab and their food and lodging, analytical expenses, and training will be funded through Earthscope. This also involved organizing and teaching a short-course in geochronology that preceded GSA 2014 in Vancouver. I am now on the executive committee of AGeS, which was funded in 2022 for 5 additional years.

Participant in numerous geochronology and earth history working groups, including EARTHTIME (2004-), synergy in U-Pb LA-ICPMS (2009-2012), NASA/NSF Exobiology workshop (2014), decay constants working group (2014-)

Invited Talks and Lectures

April 2006: Department Seminar, Department of Mineralogy, University of Geneva

November 2006: Seminar Series, Geology Department, Colorado College

March 2007: KU Geology Colloquium Series, Department of Geology, University of Kansas

February 2008: Speaker's Club Colloquium, Department of Earth Science, University of California, Santa Barbara

March 2008: Solid Earth seminar series, Department of Geosciences, Princeton University

April 2008: IGMR-IMP seminar series, Institute of Isotope Geochemistry and Mineral Resources, ETH - Zurich

January 2010: Seminar series, Geological and Planetary Sciences, Caltech

April 2010: EAS weekly seminar, Earth and Atmospheric Science, Cornell University

December 2010: INVITED talk; AGU fall meeting session: high-precision geochronology.

April 2011: Department of Geosciences Colloquium, SUNY Stonybrook
March 2012: Geology Department seminar, Amherst College, Amherst, Massachusetts
June 2012: KEYNOTE address, Goldschmidt conference 2012, Montréal, Quebec. Session title:
Extraction of crust from the mantle through time: from the Archean to the present
September 2012: KEYNOTE address, Adamello 4D conference on batholith construction,
Bagolino, Italy.
October 2012: Rutgers University, Department of Earth and Planetary Sciences
December 2012: INVITED talk; AGU fall meeting session: High resolution geochronology
February 2013: Mass. Inst. of Technology, Department lecture series, Earth, Atmospheric, and
Planetary Sciences
April 2013: American Museum of Natural History, New York, Earth Science lecture series
August 2013: KEYNOTE address, Goldschmidt conference: records in accessory minerals
August 2013: Clarke Medal Lecture, Goldschmidt conference, Florence, Italy
October 2013: University of Wisconsin, Madison, Department of Geoscience Weeks Lecture
October 2013: University of Southern California, Department of Earth sciences, department
lecture series.
October 2013: KEYNOTE address, GSA annual meeting, Denver, Colorado, P-T-X in
magmatic systems
January 2014: Dept. Terrestrial Magnetism, Carnegie Institute of Washington lecture series
April 2014: Dept. of Geosciences, Lehigh University
June 2014: KEYNOTE address, Goldschmidt meeting, Sacramento, CA, Accessory mineral
geochronology
October 2014: INVITED address, Pardee Symposium, GSA annual meeting, Vancouver, BC;
mass extinctions, impacts, and volcanism
December 2014: Department colloquium; Earth and Planetary Sciences, Harvard Univ.
April 2015: Weekly lecture; Department of Earth Sciences, Univ. Illinois Urbana-Champaign
August 2015: KEYNOTE, Goldschmidt annual meeting, Prague, Czech Republic, Archean
tectonics and crustal evolution
September 2015: weekly seminar; Department of Earth, Planetary, and Space sciences, Univ.
California, Los Angeles
September 2015: weekly seminar; Department of Geosciences, Princeton Univ.
October 2015: Department colloquium; Department of Earth, Atmospheric, and Planetary
Sciences, Purdue Univ.
December 2015: INVITED talk at fall AGU meeting on magmatic processes
February 2016: Department seminar series, Lamont-Doherty Earth Observatory
September 2016: INVITED talk at the fall GSA meeting on EARTHTIME geochronology
October 2016: Department seminar; Department of Geology and Geophysics, Yale University
November 2016: Department seminar series, University of Lausanne, Switzerland
November 2016: Department colloquium, University of Geneva, Switzerland
November 2016: KEYNOTE, Geochronology session at the Swiss Geoscience Meeting, Geneva,
Switzerland
January 2017: Department of Geological Sciences lecture, University of North Carolina, Chapel
Hill

April 2017: INVITED participant in “Great debates on great extinctions”, a special session at EGU in Vienna, Austria
October 2017: GSA INVITED team leader for GSA Pardee Symposium: Speed Dating!
October 2017: GSA INVITED talk at the fall GSA meeting on U-Pb geochronology of Deccan Traps
October 2017: Department of Earth and Planetary Sciences, Rutgers University
January 2018: Invited talk at AGU Chapman Conference on high-Si magmatic systems, Laguna del Maule, Chile
April 2018: Department of Earth and Planetary Sciences, Univ. Washington, Seattle, Washington.
August 2018: Keynote talk on the Deccan Traps at the Goldschmidt conference, Boston, Massachusetts.
April 2019: Department of Earth Sciences, Johns Hopkins Univ., Baltimore, Maryland
September 2019: GSA INVITED talk at the fall GSA meeting on Advances in precision and accuracy in U-Pb geochronology
October 2019: Department of Earth, Atmospheric and Planetary Sciences, Mass. Inst. Of Tech., Boston, Massachusetts.
October 2019: Princeton Adult School, Princeton, New Jersey
April 2019: Depart of Earth Sciences, ETH Zurich, Switzerland
February 2021: Department of Geosciences, University of Oslo, Norway
October 2021: Department of Geological Sciences, New Mexico State University, New Mexico
November 2021: Department of Geological Sciences, Cal State Fullerton, California
February 2022: High Meadows Environmental Institute, Princeton University, New Jersey
November 2022: Colorado Geological Society, Golden, Colorado
February 2023: IIT Mumbai, Mumbai, India
July 2023: INVITED Goldschmidt Conference, Lyon, France
October 2023: INVITED GTS Next Conference, Pune, India
December 2023: INVITED, Reginald Daly lecture, AGU San Francisco

Popular press

Following publication of Schoene et al. (2019) in Science:

[Click here](#) for tabulation of press coverage!

Following publication of Kasbohm and Schoene (2018) in Science Advances:

[Click here](#) for summary of press and social media coverage!

Following publication of Barboni et al., (2017) in Science Advances:

[Click here](#) for summary of press and social media coverage!

Following publication of Schoene et al., (2015) in *Science*:
[Click here](#) for summary of press and social media coverage!

Following publication of Keller and Schoene (2012) in *Nature*:
[Click here](#) for summary of press and social media coverage!

Textbooks / reports/ press releases

Flowers, R.M., Arrowsmith, J.R., McConnell, V., Metcalf, J.R., Rittenour, T., **Schoene, B.**, 2018, The AGeS2 (Awards for Geochronology Student research 2) Program: Supporting Community Geochronology Needs and Interdisciplinary Science, GSA Groundworks, DOI: 10.1130/GSATG392GW.1

Bierman, P., Fosdick, J., Guenther, W., Keen-Zebert, A., Koppers, A., Schmitz, M., and **Schoene, B.**, 2018, Dates and Rates - NSF Laboratory support strengthens US Geochronology, *EOS*

Reiners, P., Renne, P., Carlson, R., Cooper, K., Grainger, D., McLean, N. and **Schoene, B.**, 2017, Geochronology and Thermochronology, John Wiley & Sons. 464 pages. ISBN: 9781118455784

Harrison, T.M., Baldwin, S.L., Caffee, M., Gehrels, G.E., **Schoene, B.**, Shuster, D.L., Singer, B.S., 2015, Geochronology: It's About Time. *EOS*, Dec. 28 2015

Harrison, T.M., Baldwin, S.L., Caffee, M., Gehrels, G.E., **Schoene, B.**, Shuster, D.L., Singer, B.S., 2015, It's About Time: Opportunities and Challenges for U.S. Geochronology, Institute of Geophysics and Planetary Physics Publication 6539, Univ. of California Los Angeles, 56 pp.

Flowers, R.M., Arrowsmith, R., Metcalf, J.R., Rittenour, T., and **Schoene, B.**, 2014, New EarthScope Geochronology Graduate Student Research and Training Program, inSights the EarthScope Newsletter, Fall 2014, p. 3.

Journal Publications

Google Scholar publication page:

<https://scholar.google.com/citations?user=mO3Q4AwAAAAJ&hl=en&oi=sra>

‡after a name indicates a Princeton student or postdoc author

Submitted, in review or in revision

Watts, E. ‡, Chen, J., Gaynor, S.P. ‡, Memeti, V., **Schoene, B.**, *in review*, Insights from Megacryst-Included Zircon Dates on the Spatial Extent of Magma Mixing in the Tuolumne Intrusive Complex, California, USA, **Geo. Cosmo. Geosys.**

Apen, F.E. ‡, **Schoene, B.**, Joseph, Y., Massawe, R., Cottle, J.M., Ackerson, M.R., *in review*, Diverse crust-forming mechanisms on early Earth from Eoarchean–Hadean zircon of the Tanzanian craton, **Earth. Planet. Sci. Lett.**

Pamukçu, A.S., Hickernell, S.M., Eddy, M.P., **Schoene, B.**, Steiner-Leach, T., *in revision*, Geology constrains the diffusivity of Ti in quartz and crystallization timescales of high-silica magmas in the Searchlight Magmatic System (NV, USA), **Earth. Planet. Sci. Lett.**

Published and in press

108) Anttila, E. S. C., Macdonald, F. A., **Schoene, B.**, Gaynor, S. P., *in press*, Cambrian foreland phosphogenesis in the Khuvs gul Basin of Mongolia. **Amer. Jour. Sci.**

107) Westerhold, T., Dallanave, T.E., Penman, D., **Schoene, B.**, Röhl, U., Gussone, N., Kuroda, J., *in press*, Earth Orbital Rhythms links Timing of Deccan Trap Volcanism Phases and Global Climate Change, **Science Advances**

106) Dauphas, N., Zhang, Z.J., Chen, X., Barboni, M., Szymanowski, D. ‡, **Schoene, B.**, Leya, I. and McKeegan, K.D., 2025. Completion of lunar magma ocean solidification at 4.43 Ga. **Proceedings of the National Academy of Sciences of the United States of America**, *122*(2), p.e2413802121. DOI: 10.1073/pnas.2413802121

105) MacLennan, S.A. ‡, Sha, J., Olsen, P.E., Kinney, S.T., Chang, C., Fang, Y., Liu, J., Slibeck, B.B., Chen, E. and **Schoene, B.**, 2024. Extremely rapid, yet noncatastrophic, preservation of the flattened-feathered and 3D dinosaurs of the Early Cretaceous of China. **Proceedings of the National Academy of Sciences**, *121*(47), p.e2322875121. DOI: 10.1073/pnas.2322875121

- 104) Brlek, M., Trinajstić, N., Gaynor, S.P., Kutterolf, S., Hauff, F., Schindlbeck-Belo, J., Šuica, S., Wang, K.L., Lee, H.Y., Watts, E. and Georgiev, S.V., Svetoslav, Georgiev, V., Brčić, V., Špelić, M., Mišur, I., Kukoč, D., **Schoene, B.**, Lukács, R., 2024. Spread and frequency of explosive silicic volcanism of the Carpathian-Pannonian Region during Early Miocene: Clues from the SW Pannonian Basin and the Dinarides. **Journal of volcanology and geothermal research**, 455, p.108215. DOI: 10.1016/j.jvolgeores.2024.108215
- 103) Kasbohm, J., **Schoene, B.**, Thomas, E. and Hull, P., 2024. High-precision U-Pb geochronology for the Miocene Climate Optimum and a novel approach for calibrating age models in deep-sea sediment cores. **Geology**, 52(10), pp.747-752. DOI: 10.1130/G52255.1
- 102) Barboni, M., Szymanowski, D. ‡, **Schoene, B.**, Dauphas, N., Zhang, Z.J., Chen, X. and McKeegan, K.D., 2024. High-precision U-Pb zircon dating identifies a major magmatic event on the Moon at 4.338 Ga. **Science Advances**, 10(30), p.eadn9871. DOI: 10.1126/sciadv.adn987
- 101) Apen, F.E. ‡, Gaynor, S.P. ‡, **Schoene, B.**, Cottle, J.M., 2024, Evaluating reference materials and common-Pb corrections for high-resolution apatite thermo/geochronology, **Chemical Geology**, 122191. DOI: 10.1016/j.chemgeo.2024.122191
- 100) Pimenta Silva, M., Giuliani, A., Schaltegger, U., Chiaradia, M., Nowak, A., **Schoene, B.**, Ulmer, P. and Müntener, O., 2024. Tracing Lower Crustal Contamination in Continental Arc Magmas Using Sr–Nd–Hf Isotopes: A Combined In Situ and Bulk Rock Approach Applied to the Adamello Batholith. **Journal of Petrology**, 65(8), p.egae084. DOI: 10.1093/petrology/egae084
- 99) Ratschbacher, B., Ardill, K., Keller, B., **Schoene, B.**, Paterson, S., Putirka, K., Lackey, JS., Paige, M., 2024, Multi-scale magmatic and sub-solidus processes contribute to the chemical and isotopic characteristics of the Jurassic bimodal Guadalupe Igneous Complex, Sierra Nevada, California, **Geosphere**, v. 20(4): 1005-1029. DOI: 10.1130/GES02689.1
- 98) Condon, D.C., **Schoene, B.**, Schaltegger, U., Schmitz, M.D., Ickert, R. + 31 more authors, 2024, Recommendations for the Reporting and Interpretation of Isotope Dilution U-Pb Geochronological Information, **Geol. Soc. Amer. Bull.**, v. 136 (9-10): p. 4233-425. DOI: 10.1130/B37321.1
- 97) Schaltegger, U., Ovtcharova, M. and **Schoene, B.**, 2024. High-precision CA-ID-TIMS U-Pb geochronology of zircon: Materials, methods, and interpretations. In **Methods and Applications of Geochronology** (pp. 19-52). Elsevier. DOI: 10.1016/B978-0-443-18803-9.00012-2

- 96) McKanna, A. J. ‡, **Schoene, B.**, and Szymanowski, D. ‡, 2024, Geochronological and geochemical effects of zircon chemical abrasion: insights from single-crystal stepwise dissolution experiments: **Geochronology**, v. 6, no. 1, p. 1-20.
- 95) Szymanowski, D. ‡, Forni, F., Phua, M., Jicha, B., Lee, D. W. J., Hsu, Y.-J., Rifai, H., **Schoene, B.**, and Bouvet de Maisonneuve, C., 2023, A shifty Toba magma reservoir: Improved eruption chronology and petrochronological evidence for lateral growth of a giant magma body: **Earth and Planetary Science Letters**, v. 622, p. 118408.
- 94) Anttila, E. S. C., Macdonald, F. A., Szymanowski, D. ‡, **Schoene, B.**, Kylander-Clark, A., Danhof, C., and Jones, D. S., 2023, Timing and tempo of organic carbon burial in the Monterey Formation of the Santa Barbara Basin and relationships with Miocene climate: **Earth and Planetary Science Letters**, v. 620, p. 118343.
- 93) Chen, X., Dauphas, N., Zhang, Z. J., **Schoene, B.**, Barboni, M., Leya, I., Zhang, J., Szymanowski, D., and McKeegan, K. D., 2023, Methodologies for ^{176}Lu – ^{176}Hf Analysis of Zircon Grains from the Moon and Beyond: **ACS Earth and Space Chemistry**. DOI: 10.1021/acsearthspacechem.3c00093
- 92) Dauphas, N., Russell, S., Beaty, D., Thiessen, F., Barnes, J., Bonal, L., Bridges, J., Bristow, T., Eiler, J., Ferrière, L., Fornaro, T., Gattacceca, J., Hoffman, B., Javaux, E., Kleine, T., McSween, H., Prasad, M., Rampe, L., Schmidt, M., **Schoene, B.**, Siebach, K., and Stern, J., 2023, Science Priorities for the Extraction of the Solid MSR Samples from their Sample Tubes NASA-ESA Mars Rock Team: **arXiv:2301.04694 arXivLabs astro-ph.IM**.
- 91) del Castillo, E. M. ‡, Ferdowski, B. ‡, Rubin, A. M., and **Schoene, B.**, 2023, Strain Localization Patterns and Thrust Propagation in 3-D Discrete Element Method (DEM) Models of Accretionary Wedges: **Tectonics**, v. 42, no. 8, p. e2022TC007707.
- 90) Kasbohm, J. ‡, **Schoene, B.**, MacLennan, S. A., Evans, D. A. D., and Weiss, B. P., 2023, Paleogeography and high-precision geochronology of the Neoproterozoic Fortescue Group, Pilbara, Western Australia: **Precambrian Research**, v. 394, p. 107114.
- 89) Kasbohm, J. ‡, **Schoene, B.**, Mark, D. F., Murray, J., Reidel, S., Szymanowski, D., Barfod, D., and Barry, T., 2023, Eruption history of the Columbia River Basalt Group constrained by high-precision U-Pb and $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology: **Earth and Planetary Science Letters**, v. 617, p. 118269.
- 88) McKanna, A. J. ‡, Koran, I. ‡, **Schoene, B.**, and Ketcham, R. A., 2023, Chemical abrasion: the mechanics of zircon dissolution: **Geochronology**, v. 5, no. 1, p. 127-151.
- 87) Zhang, Z. J., Dauphas, N., Johnson, A. C., Aarons, S. M., Bennett, V. C., Nutman, A. P., MacLennan, S., and Schoene, B., 2023, Titanium and iron isotopic records of granitoid crust

- production in diverse Archean cratons: **Earth and Planetary Science Letters**, v. 620, p. 118342.
- 86) Zieman, L., Ibañez-Mejia, M., Rooney, A. D., Bloch, E., Pardo, N., **Schoene, B.**, and Szymanowski, D. ‡, 2023, To sink, or not to sink: The thermal and density structure of the modern northern Andean arc constrained by xenolith petrology: **Geology**, v. 51, no. 6, p. 586-590.
- 85) Kinney S.T., MacLennan, S.A. ‡, Szymanowski, D. ‡, Keller, C.B., VanTongeren, J.A., Setera, J.B., Jaret, S.J., Town, C.F., Strauss, J.V., Bradley, D.C., Olsen, P.E., **Schoene, B.**, 2022, Onset of long-lived silicic and alkaline magmatism in eastern North America precedes CAMP emplacement, **Geology**, v. 50 (11), p. 1301-3105
- 84) Pamukçu, A.S. ‡, **Schoene, B.**, Deering, C.D., Keller, C.B. ‡, Eddy, M.P. ‡, 2022, Volcano-pluton connections at the Lake City magmatic center (Colorado, USA), **Geosphere**, DOI: 10.1130/GES02467.1
- 83) Eddy, M.P., ‡ Pamukçu, A.S. ‡, **Schoene, B.**, Steiner-Leach, T. ‡, Bell, B.A., 2022, Constraints on the Timescales and Processes that Led to High-SiO₂ Rhyolite Production in the Searchlight Pluton, NV, USA, **Geosphere**, v. 18 (3), p. 1000-1019
- 82) O'Connor, L. ‡, Szymanowski, D. ‡, Eddy, M.P. ‡, Samperton, K.M. ‡, **Schoene, B.**, 2022, A red bole zircon record of cryptic silicic volcanism in the Deccan Traps, India, **Geology**, v. 50 (4), p. 460-464
- 81) Muedi, T., MacLennan, S. ‡, Szymanowski, D. ‡, **Schoene, B.**, Ramezani, J., Oalman, J., Linol, B., 2022, Constraining the timescales of mafic magmatism of the Central Karoo Large Igneous Province using high precision U-Pb zircon geochronology. **South African Journal of Geology**, 125 (1): 99–112. doi: <https://doi.org/10.25131/sajg.125.0009>
- 80) Schaltegger, U., Ovtcharova, M., Gaynor, S. P., **Schoene, B.**, Wotzlaw, J.-F., Davies, J. H., Farina, F., Greber, N., Szymanowski, D., and Chelle-Michou, C., 2021, Long-term repeatability and interlaboratory reproducibility of high-precision ID-TIMS U-Pb geochronology: **Journal of analytical atomic spectrometry**, v. 36, p.1466-1477; DOI: 10.1039/D1JA00116G
- 79) Kasbohm, J. ‡, **Schoene, B.**, Montanari, A., and Coccioni, R., 2021, High-precision U-Pb zircon geochronology of the Miocene Bisciario Formation, Contessa Section, Italy: A case study for requisite radioisotopic calibration of bio- and magnetostratigraphy: **Palaeogeography, Palaeoclimatology, Palaeoecology**, v. 576, p. 110487; DOI: 10.1016/j.palaeo.2021.110487.

- 78) **Schoene, B.**, Eddy, M. P. ‡, Keller, C. B. ‡, and Samperton, K. M. ‡, 2021, An evaluation of Deccan Traps eruption rates using geochronologic data: *Geochronology*, v. 3, no. 1, p. 181-198; DOI: 10.5194/gchron-3-181-2021.
- 77) Kasbohm, J. ‡, **Schoene, B.**, Burgess, S., 2021, Radiometric constraints on the timing, tempo, and effects of large igneous province emplacement, *in* Ernst, R.E., Dickson, A.J., Bekker, A., Large Igneous Provinces: A Driver of Global Environmental and Biotic Changes, *Geophysical Monograph 255*, American Geophysical Union and John Wiley and Sons; DOI: 10.1002/9781119507444.ch2
- 76) Schaen, A.J., **Schoene, B.**, Dufek, J., Singer, B.S., Eddy, M.P. ‡, Jicha, B.R., Cottle, J.M., 2021, Transient rhyolite melt extraction to produce a shallow granitic pluton, *Science Advances*, v. 7, no. 21, p. eabf0604; DOI: 10.1126/sciadv.abf0604.
- 75) Kinney, S.T., MacLennan, S.A. ‡, Keller, C.B. ‡, **Schoene, B.**, Setera, J.B., VanTongeren, J.A., Olsen, P.E., 2021, Zircon U-Pb geochronology constrains continental expression of Great Meteor Hotspot Magmatism, *Geophysical Research Letters*, p. e2020GL091390.
- 74) Keller, G., Mateo, P., Monkenbusch, J., Thibault, N., Punekar, J., Spangenberg, J.E., Abramovich, S., Ashckenazi-Polivoda, S., **Schoene, B.**, Eddy, M.P. ‡, Samperton, K.M. ‡, Khadri, S.F.R., Adatte, T., 2020, Mercury Linked to Deccan Traps Volcanism, Climate Change and the End-Cretaceous Mass Extinction, *Global Change*, v. 194, 103312, DOI: [10.1016/j.gloplacha.2020.103312](https://doi.org/10.1016/j.gloplacha.2020.103312)
- 73) Fantasia, A., Föllmi, K.B., Adatte, T., Spangenberg, J.E., **Schoene, B.**, Barker, R. ‡, Scasso, R.A., 2021, Late Toarcian continental paleoenvironmental conditions: an example from the Cañadón Asfalto Formation in southern Argentina, *Gondwana Research*, v. 89, p. 47-65; DOI: 10.1016/j.gr.2020.10.001
- 72) Basu, A. R., Chakrabarty, P., Szymanowski, D. ‡, Ibañez-Mejía, M., **Schoene, B.**, Ghosh, N., and Georg, R. B., 2020, Widespread silicic and alkaline magmatism synchronous with the Deccan Traps flood basalts, India: *Earth Planet. Sci. Lett.*, v. 552, p. 116616; DOI: [10.1016/j.epsl.2020.116616](https://doi.org/10.1016/j.epsl.2020.116616).
- 71) MacLennan, S.A. ‡, Eddy, M.P. ‡, Merschat, A., Crockford, P., Mehra, A. ‡, Maloof, A., Southworth, S., **Schoene, B.**, 2020, Evidence for an icehouse Earth prior to the Sturtian global glaciation, *Science Advances* 6 no. 24; eaay6647; DOI: 10.1126/sciadv.aay6647
- 70) Szymanowski, D. ‡, Schoene, B., 2020, U–Pb ID-TIMS geochronology using ATONA 1 amplifiers, *J. Anal. At. Spectrom.* 35, p. 1207; DOI: 10.1039/d0ja00135j
- 69) Eddy, M.P. ‡, **Schoene, B.**, Samperton, K.M., Keller, G., Adatte, T., Khadri, S.F.R., 2020, U-Pb Zircon Age Constraints on the Earliest Eruptions of the Deccan Large Igneous Province, Malwa Plateau, India, *Earth Planet. Sci. Lett.* 540, 116249; DOI: 10.1016/j.epsl.2020.116249

- 68) Husson, J.M. ‡, Linzmeier, B.J., S'liwin' ski, M.G., Kitajima, K., Ishida, A., Maloof, A.C., **Schoene, B.**, Peters, S.E. and Valley, J.W., 2020, Large isotopic variability at the micron-scale in records of the Ediacaran carbon cycle, *Earth Planet. Sci. Lett.* 538, 116211; DOI: 10.1016/j.epsl.2020.116211
- 67) Guevara, V.E., MacLennan, S.A. ‡, Caddick, M.J., **Schoene, B.**, Dragovic, B., Kylander-Clark, A.R.C., Couëslan, C.G., 2020, Timescales of Archean ultrahigh-temperature metamorphism: integration of high-spatial and high-temporal resolution U-Pb petrochronology, *Journal of Petrology*, *egaa021*, DOI: 10.1093/petrology/egaa021
- 66) Chambers, M., Memeti, V., Eddy, M.P. ‡, **Schoene, B.**, 2020, Half a million years of magmatic history recorded in a K-feldspar megacryst of the Tuolumne Intrusive Complex, California, *Geology* 48(4), p. 400-404; DOI: 10.1130/G46873.1
- 65) Tasistro-Hart, A. ‡, Maloof, A., **Schoene, B.**, Eddy, M. ‡, 2020, Astronomically Forced Hydrology of the Late Cretaceous Sub-tropical Potosí Basin, Bolivia, *GSA Bulletin*; DOI: 10.1130/B35189.1
- 64) Nelson, D. A., Cottle, J. M., and **Schoene, B.**, 2020, Butcher Ridge igneous complex: A glassy layered silicic magma distribution center in the Ferrar large igneous province, Antarctica: *GSA Bulletin* 132(5-6), p. 1201-1216; DOI: 10.1130/b35340.1
- 63) Park, Y., Swanson-Hysell, N. L., MacLennan, S. A. ‡, Maloof, A. C., Gebreslassie, M., Tremblay, M. M., **Schoene, B.**, Alene, M., Anttila, E. S. C., Tesema, T., and Haileab, B., 2020, The lead-up to the Sturtian Snowball Earth: Neoproterozoic chemostratigraphy time-calibrated by the Tambien Group of Ethiopia: *GSA Bulletin* 132(5-6), p. 1119-1149; DOI: 10.1130/b35178.1
- 62) Keller, C. B. ‡, Boehnke, P., **Schoene, B.**, and Harrison, T. M., 2019, Stepwise chemical abrasion ID-TIMS-TEA of microfractured Hadean zircon: *Geochronology* 1(1), p. 85-97. DOI: 10.5194/gchron-2019-4
- 61) **Schoene, B.**, Eddy, M. P., Samperton, K. M. ‡, Keller, C. B. ‡, Keller, G., Adatte, T., and Khadri, S. F. R., 2019, U-Pb constraints on pulsed eruption of the Deccan Traps across the end-Cretaceous mass extinction: *Science*, v. 363, no. 6429, p. 862. DOI: 10.1126/science.aau2422
- 60) 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 N., C., Ende, M., Valley, J. W., Spicuzza, M. J., Wanthanachaisaeng, B., and Giester, G., 2018, GZ7 and GZ8 – Two

Zircon Reference Materials for SIMS U-Pb Geochronology: *Geostandards and Geoanalytical Research*, v. 42, no. 4, p. 431-457. doi:10.1111/ggr.12239

- 59) Eddy, M. P. ‡, Ibañez-Mejía, M., Burgess, S. D., Coble, M. A., Cordani, U. G., DesOrmeau, J., Gehrels, G. E., Li, X., MacLennan, S. ‡, Pecha, M., Sato, K., **Schoene, B.**, Valencia, V. A., Vervoort, J. D., and Wang, T., 2018, GHR1 Zircon – A New Eocene Natural Reference Material for Microbeam U-Pb Geochronology and Hf Isotopic Analysis of Zircon: *Geostandards and Geoanalytical Research*, doi:10.1111/ggr.12246
- 58) Schaen, A. J., Singer, B. S., Cottle, J. M., Garibaldi, N., **Schoene, B.**, Satkoski, A. M., and Fournelle, J., 2018, Textural and Mineralogical Record of Low-pressure Melt Extraction and Silicic Cumulate Formation in the Late Miocene Risco Bayo–Huemul Plutonic Complex, Southern Andes: *Journal of Petrology*, v. 59, no. 10, p. 1991-2016.
- 57) DesOrmeau, J. W., Gordon, S. M., Little, T. A., Bowring, S. A., **Schoene, B.**, Samperton, K. M. ‡, and Kylander-Clark, A. R. C., 2018, Using Eclogite Retrogression to Track the Rapid Exhumation of the Pliocene Papua New Guinea UHP Terrane: *Journal of Petrology*, v. 59, no. 10, p. 2017-2042.
- 56) Keller, C.B. ‡, Samperton, K.M. ‡, and **Schoene, B.**, 2018, A stochastic sampling approach to zircon eruption age interpretation: *Geochemical Perspectives Letters* 8, 31-35; doi: 10.7185/geochemlet.1826
- 55) Kasbohm, J. ‡, and **Schoene, B.**, 2018, Rapid eruption of the Columbia River flood basalt and correlation with the mid-Miocene climate optimum: *Science Advances*, v. 4, no. 9. Doi: 10.1126/sciadv.aat8223
- 54) Ratschbacher, B. C., Keller, C. B. ‡, **Schoene, B.**, Paterson, S. R., Anderson, J. L., Okaya, D., Putirka, K., and Lippoldt, R., 2018, A new workflow to assess emplacement duration and melt residence time of compositionally diverse magmas emplaced in a sub-volcanic reservoir: *Journal of Petrology*, p. egy079-egy079.
- 53) Champion, A. ‡, Maloof, A., **Schoene, B.**, Oleynik, S., Sanz-López, J., Blanco-Ferrera, S., Merino-Tomé, O., Bahamonde, J. R., and Fernández, L. P., 2018, Constraining the Timing and Amplitude of Early Serpukhovian Glacioeustasy With a Continuous Carbonate Record in Northern Spain: *Geochemistry, Geophysics, Geosystems*, v. 19, no. 8, p. 2647-2660.
- 52) MacLennan, S. ‡, Park, Y., Swanson-Hysell, N., Maloof, A., **Schoene, B.**, Gebreslassie, M., Antilla, E., Tesema, T., Alene, M., and Haileab, B., 2018, The arc of the Snowball: U-Pb dates constrain the Islay anomaly and the initiation of the Sturtian glaciation: *Geology*, v. 46, no. 6, p. 539-542.

- 51) de Wit, M., Furnes, H., MacLennan, S. ‡, Doucouré, M., **Schoene, B.**, Weckmann, U., Martinez, U., and Bowring, S., 2018, Paleoproterozoic bedrock lithologies across the Makhonjwa Mountains of South Africa and Swaziland linked to geochemical, magnetic and tectonic data reveal early plate tectonic genes flanking subduction margins: *Geoscience Frontiers*, v. 9, no. 3, p. 603-665.
- 50) Keller, C.B.‡ and **Schoene, B.**, 2018, Plate tectonics and continental basaltic geochemistry throughout Earth history, *Earth Planet. Sci. Lett.* 481, p. 290-304; doi: 10.1016/j.epsl.2017.10.031
- 49) Samperton, K.M.‡, Bell, E.A., Barboni, M. Keller, C.B.‡, and **Schoene, B.**, 2017, Zircon age–temperature–compositional spectra in plutonic rocks: *Geology* 45; no. 11; p.983-986.
- 48) Schaen, A.J., Cottle, J.M., Singer, B.S., Keller, C.B.‡, Garibaldi, N., **Schoene, B.**, 2017, Complementary crystal accumulation and rhyolite melt segregation in a late Miocene Andean pluton, *Geology* 45, no. 9, p. 835-838; doi: 10.1130/G39167.1
- 47) **Schoene, B.** and Baxter, E., 2017, Petrochronology and TIMS, *Reviews in Mineralogy and Geochemistry: Petrochronology*. v. 83, no.1, p 231-260
- 46) Keller, C.B.‡, Boehnke, P., **Schoene, B.**, 2017, Temporal variation in average zircon saturation temperature over the last 4 Gyr, *Geochemical Perspectives Letters*, v. 3, p. 179-189, DOI: 10.7185/geochemlet.1721
- 45) Barboni, M., Boehnke, P., Keller, C. B.‡, Kohl, I., **Schoene, B.**, Young, E.D., and McKeegan, K. D., 2017, Early Formation of the Moon 4.51 billion years ago: *Science Advances*, v. 3, no. 1, e1602365.
- 44) Deering CD, Keller CB, **Schoene B**, Bachmann O, Beane R, Ovtcharova M, 2016, Zircon record of the plutonic-volcanic connection and protracted rhyolite melt extraction, *Geology* 44 no. 4; 267-270
- 43) Husson JM‡, **Schoene B**, Blüher S‡, Maloof AC, 2016, U-Pb constraints on the duration of the Silurian-Devonian boundary $\delta^{13}\text{C}$ excursion from the North American Helderberg Group, *Earth Planet. Sci. Letters* 436, 108-120
- 42) Horstwood SAH, Kosler J, Gehrels G, Jackson SE, McLean NM, Paton C, Pearson NJ, Sircombe K, Sylvester P, Vermeesch P, Bowring JF, Condon DJ, **Schoene B**, 2016, Community-derived standards for LA-ICP-MS U-Th-Pb geochronology - uncertainty propagation, age interpretation and data reporting, *Geostandards and Geoanalytical Research* 40 no. 3, 311-332. doi: 10.1111/j.1751-908X.2016.00379.x

- 41) Guex J, Pilet S, Müntener O, Bartolini A, Spangenberg J, **Schoene B**, Sell B, Schaltegger S, 2016, Thermal erosion of cratonic lithosphere as a potential trigger for mass-extinction, *Scientific Reports*; 6:23168, DOI:10.1038/srep23168
- 40) Samperton KM, **Schoene B**, Cottle JM, Keller CB, Crowley JL, Schmitz MD, 2015, Magma emplacement, differentiation and cooling in the middle crust: integrated zircon geochronological-geochemical constraints from the Bergell Intrusion, Central Alps, *Chemical Geology* 417, 322-340. doi:10.1016/j.chemgeo.2015.10.024
- 39) Barboni M, Annen C, **Schoene B**, 2015, Evaluating the construction and evolution of upper crustal magma reservoirs with coupled U/Pb zircon geochronology and thermal modeling: A case study from the Mt. Capanne pluton (Elba, Italy), *Earth Planet. Sci. Letters* 432, 446-448
- 38) Desormeau J, Gordon SM, Kylander-Clark A, Hacker BR, Bowring SA, **Schoene B**, Samperton KM, 2015, Insights into (U)HP metamorphism of the Western Gneiss Region, Norway: a high-spatial resolution and high-precision zircon study, *Chemical Geology* 414, 138-155
- 37) Keller CB‡, **Schoene B**, Barboni M, Samperton KM‡, Husson JM‡, 2015, The volcanic plutonic connection and the evolution of the continental crust, *Nature* 523, 301-307
- 36) Condon DJ, **Schoene B**, McLean NM, Bowring SA, Parrish RR, 2015, Metrology and traceability of U-Pb isotope dilution geochronology (EARTHTIME tracer calibration part I), *Geochim. Cosmochim. Acta* 164, 464-480
- 35) McLean NM, Condon DC, **Schoene B**, Bowring SA, 2015, Evaluating uncertainties in the calibration of isotopic reference materials and multi-element isotopic tracers (EARTHTIME tracer calibration part II), *Geochim. Cosmochim. Acta* 164, 481-501
- 34) Husson JM‡, Higgins JA, Maloof AC, **Schoene B**, 2015, Ca and Mg isotope constraints on the origin of the Earth's deepest $\delta^{13}\text{C}$ excursion, *Geochim. Cosmochim. Acta* 160, 243-256; doi: 10.1016/j.gca.2015.03.012
- 33) Gothman AM‡, Stolarski J, Adkins JF, **Schoene B**, Dennis KJ, Schrag DP, Mazur M, Bender ML, 2015, Fossil corals as an archive of secular variations in seawater chemistry, *Geochim. Cosmochim. Acta* 160, 188-210; doi:10.1016/j.gca.2015.03.018
- 32) Husson JM‡, Maloof AC, **Schoene B**, Chen CY‡, Higgins JA, 2015, Stratigraphic expression of Earth's deepest $\delta^{13}\text{C}$ excursion in the Wonoka Formation of South Australia, *American Journal of Science* 315, 1-45, doi:10.2475/01.2015.01

- 31) **Schoene B**, Samperton KM‡, Eddy MP, Keller G, Adatte T, Bowring SA, Khadri SFR, Gertsch B, 2015, U-Pb geochronology of the Deccan traps and relation to the end-Cretaceous mass extinction, *Science* 347, 182-184; doi: 10.1126/science.aaa0118
- 30) Wotzlaw J-F, Guex J, Bartolini A, Gallet Y, Krystyn L, McRoberts CA, Taylor D, **Schoene B**, Schaltegger U, 2014, Towards accurate numerical calibration of the Late Triassic: High-precision U-Pb geochronology constraints on the duration of the Rhaetian, *Geology* 42, 571-574; doi: 10.1130/G35612.1
- 29) Barboni M, **Schoene B**, 2014, Short eruption window revealed by absolute crystal growth rates in a granitic magma, *Nature Geoscience* 7, 524-528, doi: 10.1038/ngeo2185
- 28) **Schoene B**, 2014, U-Th-Pb Geochronology, in *Treatise on Geochemistry 2nd Edition*, ch. 3.10, Rudnick R, ed. Elsevier, Oxford, UK.
- 27) Rose CV‡, Maloof AC, **Schoene B**, Ewing RC, Linneman U, Hofmann M, Cottle JM, 2013, The end-Cryogenian glaciation of South Australia, *Geoscience Canada* 40, 256-293; doi: 10.12789/geocanj.2013.40.019.
- 26) **Schoene B**, Condon DJ, Morgan L, Mclean NM, 2013, Precision and Accuracy in Geochronology, *Elements* v. 9 number 1, p. 19-24
- 25) Barboni M, **Schoene B**, Ovtcharova M, Bussy F, Schaltegger U, Gerdes A, 2013, Timing of incremental pluton construction and magmatic activity in a back-arc setting revealed by ID-TIMS U/Pb and Hf isotopes on complex zircon grains, *Chemical Geology* 340, 76-93; doi: 10.1016/j.chemgeo.2012.12.011
- 24) **Schoene B**, Schaltegger U, Brack P, Latkoczy C, Stracke A, Günther D, 2012, Rates of magma differentiation and emplacement in a ballooning pluton recorded by U-Pb TIMS-TEA, Adamello batholith, Italy, *Earth Planet. Sci. Lett.* 355-356, p. 162-173
- 23) Guex J, **Schoene B**, Bartolini A, Spangenberg J, Schaltegger U, O'Dogherty L, Taylor D, Atudorei V, Bucher H, 2012, Post-extinction recovery of the ammonoids and carbon isotope cycle during the Early Jurassic: Geochronological constraints, *Paleo*³ 346-347, 1-11; doi:10.1016/j.palaeo.2012.04.030
- 22) Keller B‡, **Schoene B**, 2012, Statistical geochemistry reveals disruption in secular lithospheric evolution about 2.5 Gyr ago, *Nature* 485, 490-493 doi:10.1038/nature11024
- 21) Husson JM‡, Maloof AC, **Schoene B**, 2012, A syn-depositional age for Earth's deepest $\delta^{13}\text{C}$ excursion required by isotope conglomerate tests, *Terra Nova* 24, 318-325; doi: 10.1111/j.1365-3121.2012.01067.x

- 20) Rose CV‡, Swanson-Hysell NL‡, Husson JM‡, Poppick LN, Cottle JM, **Schoene B**, Maloof AC, 2012, Constraints on the origin and relative timing of the Trezona $\delta^{13}\text{C}$ anomaly below the end-Cryogenian glaciation, *Earth Planet. Sci. Lett.* 319-320, 241-250; doi: 10.1016/j.epsl.2011.12.027
- 19) Bartolini A, Guex J, Spangenberg J, **Schoene B**, Taylor D, Schaltegger U, Atudorei V, 2012, Disentangling the Hettangian carbon isotope record: implications for the aftermath of the end-Triassic mass extinction, *Geochem. Geophys. Geosyst.* 13, doi:10.1029/2011GC003807
- 18) Blackburn TJ, Shimizu N, Bowring SA, **Schoene B**, Mahan K, 2012, Zirconium in rutile speedometry: New constraints on lower crustal cooling rates and residence temperatures, *Earth Planet. Sci. Lett.* 317-318, 231-240; doi: 10.1016/j.epsl.2011.11.012
- 17) Blackburn TJ, Bowring SA, **Schoene B**, Mahan K, Dudás FÖ, 2011, U-Pb thermochronology: creating a temporal record of lithosphere thermal evolution, *Contrib. Mineral. Petrol.*, v. 162, p. 479-500. DOI: 10.1007/s00410-011-0607-6
- 16) **Schoene B**, Latkoczy C, Schaltegger U, Günther D, 2010, A new method integrating high-precision U-Pb geochronology with zircon trace element analysis (U-Pb TIMS-TEA), *Geochim. Cosmochim. Acta* v. 74, p. 7144
- 15) Flowers RM, **Schoene B**, 2010, Mesozoic relief development and uplift of the eastern Kaapvaal craton, southern African Plateau from (U-Th)/He thermochronometry, *Geology*, v. 38; no. 9; p. 827-830; doi: 10.1130/G30980.1
- 14) Bachmann O, **Schoene B**, Schnyder C, Spikings R, 2010, $^{40}\text{Ar}/^{39}\text{Ar}$ and U/Pb dating of young rhyolites in the Kos-Nosyros volcanic complex, Eastern Aegean Arc (Greece): age discordance from excess ^{40}Ar in biotite, *Geochem., Geophys., Geosyst.*, DOI:10.1029/2010GC003073
- 13) **Schoene B**, Guex J, Bartolini A, Schaltegger U, Blackburn T, 2010, Correlating the end-Triassic mass extinction and flood basalt volcanism at the 100,000-year level, *Geology* 38; p. 387–390; DOI: 10.1130/G30683.1
- 12) **Schoene B**, Bowring S.A., 2010, Rates and mechanisms of Mesoarchean magmatic arc construction, eastern Kaapvaal craton, Swaziland, *GSA Bulletin* 122, p. 408-429; DOI: 10.1130/B26501.1.
- 11) Schaltegger U, Brack P, Ovtcharova M, Peytcheva I, **Schoene B**, Stracke A, Marocchi M, Bargossi G, 2009, 700,000 years of magma accretion, crystallization and initial cooling in a composite pluton recorded by zircon and titanite (Adamello batholith, northern Italy), *Earth Planet. Sci. Lett.* 286, pp. 208-218
- 10) **Schoene B**, Dudás F.O.L., Bowring S.A., de Wit M.J., 2009, Sm-Nd isotopic mapping of lithospheric growth and stabilization in the eastern Kaapvaal craton, *Terra Nova* 21, pp. 219-

- 9) **Schoene B**, de Wit M. J., Bowring S. A., 2008, Mesoarchoean assembly and stabilization of the eastern Kaapvaal craton: A structural-thermochronological perspective: *Tectonics* 27, TC5010, DOI:10.1029/2008TC002267
- 8) Slama J, Kosler J, Condon D.J., Crowley J.L., Gerdes A, Hancher J.M., Horstwood M.S.A., Morris G.A., Nasdala L, Norberg N, Schaltegger U, **Schoene B**, Tubrett M.N., Whitehouse M.J., 2008, Plesovice zircon – a new natural reference material for U-Pb and Hf isotopic microanalysis, *Chemical Geology* 249, pp. 1-35, DOI:10.1016/j.chemgeo.2007.11.005
- 7) Schaltegger U, Guex J, **Schoene B**, Bartolini A, Ovtcharova M, 2008, Precise U-Pb age constraints for end-Triassic mass extinction, its correlation to volcanism and Hettangian post-extinction recovery, *Earth Planet. Sci. Lett.* 267, pp. 266-275, DOI: 10.1016/j.epsl.2007.11.031
- 6) Crowley J.L., **Schoene B**, Bowring S.A., 2007, U-Pb dating of zircon in the Bishop Tuff at the millennial scale, *Geology* 35, pp. 1123-1126, doi: 10.1130/G24017A.1.
- 5) Schmitz M.D., **Schoene B**, 2007, Derivation of isotope ratios, errors and error correlations for U-Pb geochronology using ^{205}Pb - ^{235}U -(^{233}U)-spike isotope dilution thermal ionization mass spectrometric data, *Geochem., Geophys., Geosyst.* 8, Q08006, DOI: 10.1029/2006GC001492
- 4) **Schoene B**, Bowring S.A., 2007, Determining accurate temperature-time paths from U-Pb thermochronology: an example from the SE Kaapvaal Craton, Southern Africa, *Geochim. Cosmochim. Acta* 71: 165-185.
- 3) Bowring S.A., **Schoene B**, Crowley J.L., Ramezani J, Condon D.J., 2006, High-precision zircon U-Pb geochronology and the stratigraphic record: Progress and promise, in Olszewski (ed.), *Geochronology: Emerging Opportunities, Paleontological Society Short Course*, v. 12.
- 2) **Schoene B**, Bowring S.A., 2006, A U-Pb age for the $^{40}\text{Ar}/^{39}\text{Ar}$ standard MMhb: implications for accurate comparative geochronology and U-Pb thermochronology. *Contrib. Mineral. Petrol.* 151 (5): 315-330
- 1) **Schoene B**, Crowley J.L., Condon D.C., Schmitz M.D., Bowring S.A., 2006, Reassessing the uranium decay constants for geochronology using ID-TIMS U-Pb data. *Geochim. Cosmochim. Acta* 70: 426-445

Selected Meeting Abstracts

AGU, 2022, Chicago, IL, **7 abstracts**

<https://agu.confex.com/agu/fm22/meetingapp.cgi/Person/709340>

GSA, 2022, Denver, CO, **6 abstracts**

<https://gsa.confex.com/gsa/2022AM/meetingapp.cgi/Person/140759>

Goldschmidt, 2022, Honolulu, **1 abstract**

<https://conf.goldschmidt.info/goldschmidt/2022/meetingapp.cgi/Person/16904>

NE GSA, 2022, Lancaster, PA

<https://gsa.confex.com/gsa/2022NE/meetingapp.cgi/Person/140759>

AGU, 2021, New Orleans, **2 abstracts**

<https://agu.confex.com/agu/fm21/meetingapp.cgi/Person/709340>

GSA, 2021, Portland, OR, **2 abstracts**

<https://gsa.confex.com/gsa/2021AM/meetingapp.cgi/Person/140759>

Goldschmidt, 2021, Lyon, Online, **3 abstracts**

<https://2021.goldschmidt.info/goldschmidt/2021/meetingapp.cgi/Person/16904>

EGU, spring 2021, Vienna, Online, **1 abstract**

<https://meetingorganizer.copernicus.org/EGU21/EGU21-10700.html>

AGU, fall 2020, Online, **4 abstracts**

<https://agu.confex.com/agu/fm20/webprogram/Paper759896.html>

<https://agu.confex.com/agu/fm20/webprogram/Paper733243.html>

<https://agu.confex.com/agu/fm20/webprogram/Paper758639.html>

<https://agu.confex.com/agu/fm20/webprogram/Paper733612.html>

GSA, fall 2020, Online, **7 abstracts**

<https://gsa.confex.com/gsa/2020AM/meetingapp.cgi/Person/140759>

<https://gsa.confex.com/gsa/2020AM/meetingapp.cgi/Person/243687>

AGU, fall 2019, San Francisco; **4 abstracts**

<https://agu.confex.com/agu/fm19/meetingapp.cgi/Person/709340>

GSA, fall 2019, Phoenix, **10 abstracts**

<https://gsa.confex.com/gsa/2019AM/meetingapp.cgi/Search/0?sort=FinalNumber&size=10&page=1&searchterm=schoene>

Goldschmidt, 2019, Barcelona, Spain, **2 abstracts**

EGU, Spring 2019, Vienna, Austria, **2 abstracts**

AGU, fall 2018, Washington, D.C., **5 abstracts**

<https://agu.confex.com/agu/fm18/meetingapp.cgi/Person/709340>

GSA, fall 2018, Indianapolis, **8 abstracts:**

<https://gsa.confex.com/gsa/2018AM/meetingapp.cgi/Search/0?sort=FinalNumber&size=10&page=1&searchterm=schoene>

Goldschmidt Conference, Aug. 2018, Boston, **3 abstracts:**

<https://goldschmidt.info/2018/program/programViewAuthor?authorId=2050086762>

EGU, Spring 2018, Vienna, Austria, **3 abstracts**

AGU fall 2017, New Orleans: **4 abstracts:**

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Person/76339>

GSA fall 2017, Seattle. **6 abstracts:**

<https://gsa.confex.com/gsa/2017AM/meetingapp.cgi/Person/140759>, and
<https://gsa.confex.com/gsa/2017AM/meetingapp.cgi/Person/144567>

Goldschmidt Conference, 2017, Paris. **2 abstracts:**

<https://goldschmidt.info/2017/program/programViewAuthor?authorId=2050076358>

Ratschbacher, B.C., Keller, C.B., Schoene, B., Paterson, S., Anderson, L., Okaya, D., Putirka, K., Lippoldt, R., 2017, Time scales of construction and compositional evolution of a bimodal shallow crustal magma reservoir and implications for differentiation in the upper crust, IAVCEI, Portland, OR

Pamukçu, A., Schoene, B., Deering, C., 2017, Compositional heterogeneity in the Lake City magmatic system (CO, USA) revealed by zircon U-Pb TIMS-TEA, IAVCEI, Portland, OR

EGU Spring 2017, Vienna, **2 abstracts:** [1](#) [2](#)

AGU Fall 2016, San Francisco. **9 abstracts:**

<https://agu.confex.com/agu/fm16/meetingapp.cgi/Person/76339>

Keller, C. Brenhin, **Schoene, Blair** and Samperton, Kyle M., 2016, A Bayesian Approach To Zircon Age Interpretation, Geological Society Of America *Abstracts With Programs*. Vol. 48, No. 7 Doi: 10.1130/Abs/2016am-284893

Schoene, Blair, Samperton, Kyle M. And Keller, C. Brenhin, 2016, Precision And Accuracy Of Id-Tims U-Pb Geochronology Applied To The Stratigraphic Record (Invited Presentation) Geological Society Of America *Abstracts With Programs*. Vol. 48, No. 7 Doi: 10.1130/Abs/2016am-286459

Kinney, Sean T., Olsen, Paul E., **Schoene, Blair**, Vantongerren, Jill And Setera, Jacob, 2016, Jurassic Igneous Activity Of The White Mountain Magma Series And The Central Atlantic Magmatic Province: A Temporal And Possible Geodynamic Connection? Geological Society Of America *Abstracts With Programs*. Vol. 48, No. 7 Doi: 10.1130/Abs/2016am-287845

Sordet, Valentin, Adatte, Thierry, Keller, Gerta, **Schoene, Blair**, Samperton, Kyle M. And Khadri, Syed, 2016, Timing, Tempo And Paleoenvironmental Implications Of Deccan Volcanism Relative To The Ktb Extinction : Evidences From The Red Bole Record, Geological Society Of America *Abstracts With Programs*. Vol. 48, No. 7 Doi: 10.1130/Abs/2016am-284642

Hodges, K.V., Van Soest, M.C., Mercer, C.M., Cartwright, J.A., Horne, A.G., Brunner, A.E., Mcdonald, C.S. And **Schoene, B.**, 2016, The Persistent Challenge Of Accurately And Precisely Dating Impact Events, Geological Society Of America *Abstracts With Programs*. Vol. 48, No. 7 Doi: 10.1130/Abs/2016am-282403

Adatte, Thierry, Font, Eric, Mbabi Bitchong, André, Keller, Gerta, **Schoene, Blair**, Samperton, Kyle M. And Khadri, Syed F.R., 2016, Timing And Tempo Of Deccan Volcanism Revealed By Mercury Anomalies, Geological Society Of America *Abstracts With Programs*. Vol. 48, No. 7 Doi: 10.1130/Abs/2016am-285123

Keller, Gerta, Adatte, Thierry, Punekar, Jahnavi, Mateo, Paula, Spangenberg, Jorge, **Schoene, Blair**, Samperton, Kyle And Khadri, Syed F.R., 2016, Accelerating Deccan Eruptions And Runaway Climate Change, Geological Society Of America *Abstracts With Programs*. Vol. 48, No. 7 Doi: 10.1130/Abs/2016am-283710

Condon, Daniel, Bowring, James F., Connelly, James N., Erwin, Douglas H., He, Huaiyu, Heizler, Matthew T., Hemming, Sidney R., Hodges, Kip V., Horstwood, Matthew, Johnson, Kirk, Kuiper, Klaudia Mark, Darren F., Mclean, Noah, Morgan, Leah E., Parrish, Randall, Ramezani, Jahandar, Rasbury, Troy, Renne, Paul R., Rooney, Alan D., Sadler, Peter, Schaltegger, Urs, Schmitz, Mark D., **Schoene, Blair**, Singer, Brad S., Turrin, Brent, Von Quadt, Albrecht, Walker, Douglas, Wang, Chengshan, Wu, Huaichun And Wijbrans, Jan R., 2016, The Earthtime Initiative: Accelerating Advances In Geochronology Since 2003, Geological Society Of America *Abstracts With Programs*. Vol. 48, No. 7 Doi: 10.1130/Abs/2016am-282709

Thierry Adatte, Valentin Sordet, Gerta Keller, **Blair Schoene**, Kyle Samperton, and Syed Khadri, 2016, Timing, tempo and paleoenvironmental implications of Deccan volcanism

relative to the KTB extinction, what we can learn from the red bole record? EGU Spring 2016, abstract EGU2016-8245

Sebastien Pilet, Jean Guex, Othmar Muntener, Annachiara Bartolini, Jorge Spangenberg, **Blair Schoene**, and Urs Schaltegger, 2016, Thermal erosion of cratonic lithosphere as a potential trigger for mass-extinction, EGU Spring 2016, EGU2016-1772

Schoene B, Barboni M, Samperton K, 2015, INVITED: U-Pb Geochronology: Taking or Creating the Pulse of Magmatic Systems? AGU Fall meeting, abstract T31F-2910

MacLennan S, **Schoene B**, 2015, Thermal and Temporal Constraints on the Development of Dome and Keel Structures in the Eastern Pilbara Craton Using U-Pb Thermochronology, AGU Fall meeting, abstract T22A-07

Park Y, Anttila E, MacLennan S, Swanson-Hysell N, Maloof A, **Schoene B**, Haileab B, 2015, Newly Discovered Exposures of Neoproterozoic Diamictite within the Samre Fold-Thrust Belt of Northern Ethiopia, AGU Fall meeting, abstract PP33B-2300

Harrison M, Baldwin S, Caffee M, Gehrels G, **Schoene B**, Shuster D, Singer B, 2015, It's About Time: How Accurate Can Geochronology Become? AGU Fall meeting, abstract V31G-01

Samperton K, **Schoene B**, Annen C, 2015, How to build a mid-crustal intrusive suite: geologic mapping, U-Pb geo-/thermochronology, and thermal modeling of the Bergell Intrusion, Central Alps, AGU Fall meeting, abstract V33D-3150

Flowers R, Arrowsmith R, Metcalf J, Rittenour T, **Schoene B**, Hole J, Pavlis T, Wagner L, Whitmeyer S, Williams M, 2015, Geology, Geochronology, and EarthScope: The EarthScope AGeS Program and a new idea for a 4D Earth Initiative (Invited), AGU Fall meeting, abstract T14A-01

Barboni M, Annen C, **Schoene B**, 2015, Evaluating the construction and evolution of upper crustal reservoirs with coupled U/Pb zircon geochronology and thermal modeling: A case study from the Mt. Capanne pluton (Elba, Italy) (Invited), AGU Fall meeting, abstract V41D-05

Swanson-Hysell N, Maloof A, Condon D, Park Y, MacLennan S, **Schoene B**, Tremblay M, Alene M, Anttila E, Haileab B, Tesema T, 2015, Early Neoproterozoic Global Change Through the Lens of the Tambien Group, Northern Ethiopia, AGU Fall meeting, abstract PP31E-07

Kasbohm J, Maloof A, **Schoene B**, Weiss B, 2015, Constraining Rates of Neoproterozoic Plate Motion through Magnetostratigraphy and Integrated High-Precision Geochronology of the Fortescue Group, Pilbara, Western Australia, AGU Fall meeting, abstract T13A-2958

- McLean N, Condon D, Bowring S, **Schoene B**, Dutton A, Rubin K, 2015, Community-based Approaches to Improving Accuracy, Precision, and Reproducibility in U-Pb and U-Th Geochronology (Invited), AGU Fall meeting, abstract IN23E-04
- Keller CB, **Schoene B**, Johnston D, 2015, A Global Record of Surface Earth Oxygenation from Sedimentary V/Sc, AGU Fall meeting, abstract PP33E-05
- Schaen A, Garibaldi N, Singer B, **Schoene B**, Cottle J, Tikoff B, Gutiérrez F, Jicha B, Payacán I, 2015, 4-Dimensional Insights into Silicic Magma Reservoir Assembly from Late Miocene Southern Andean Plutons, AGU Fall meeting, abstract V51G-3118
- Adatte T, Keller G, **Schoene B**, Samperton K, Font E, Sial An, De Lacerda Ld, Punekar J, Fantasia A, Khadri S, 2015, Paleoenvironmental Influence Of Deccan Volcanism Relative To The Kt Extinction, Gsa Fall Meeting, Paper No. 68-11
- Gordon Sm, Desormeau, Jw, Little T, Bowring Sa, Hacker Br, **Schoene B**, Samperton K, 2015, Rapid Exhumation History Of The (U)Hp Papua New Guinea Terrane: Insight From Zircon And Pseudosection Analysis, Gsa Fall Meeting, Paper No. 281-2
- Kinney ST, Olsen PE, **Schoene B**, Vantongeren J, Setera J, Hemming Sr, 2015, Re-Evaluating The White Mountain Magma Series Through High-Precision Zircon U-Pb Geochronology And Trace Element Geochemistry: A Preliminary Report, Gsa Fall Meeting, Paper No. 319-2
- Samperton KM, **Schoene B**, Annen C, 2015, Portrait Of A Pluton: An Integrated Observational, Analytical And Modeling Study Of The Mid-Crustal Bergell Intrusion, Central Alps, Gsa Fall Meeting, Paper No. 195-6
- Keller CB, Mcculloch C, **Schoene B**, 2015, New Constraints From Field Mapping And U-Pb Tims Geochronology On The Magmatic History Of The Needle Mountains Proterozoic Complex, Southwestern Colorado, Gsa Fall Meeting, Paper No. 227-31
- Schaltegger U, Wotzlaw J-F, Ovtcharova M, **Schoene B**, Davies JHFL & Baresel B, 2015, Assessing the long-term reproducibility of high-precision ID-TIMS U-Pb data, Goldschmidt Annual meeting, Prague, Czech Republic
- Keller B, **Schoene B**, Boehnke P, 2015, Temporal variation in average zircon saturation temperature over last 4 Gyr, Goldschmidt Annual meeting, Prague, Czech Republic
- Schoene B**, Blackburn T, Keller B, 2015, KEYNOTE: Was Archean crust hot?, Goldschmidt Annual meeting, Prague, Czech Republic
- Schoene B**, 2014, INVITED: Weapons for mass extinctions: U-Pb geochronology applied to

constraining catastrophes annual GSA meeting, Vancouver, BC, abstract 63-5

Husson JM, Higgins JA, Maloof AC, **Schoene B**, 2014, Ca isotope constraints on the origin of Earth's deepest $\delta^{13}\text{C}$ excursion, annual GSA meeting, Vancouver, BC, abstract 158-14

Schoene B, Barboni M, Samperton KM, 2014, KEYNOTE: Crystal growth rates in plutonic systems via ID-TIMS U-Pb geochronology, Goldschmidt meeting, Sacramento, CA, abstract 3771

Samperton KM, **Schoene B**, Cottle J, 2014, Temporal and compositional heterogeneity in accessory minerals: Implications for magmatic differentiation and pluton emplacement processes, Goldschmidt meeting, Sacramento, CA, abstract 4768

Keller CB, **Schoene B**, 2014, Insights into the formation of Archean crust from statistical geochemistry of the Archean-Proterozoic transition, Goldschmidt meeting, Sacramento, CA, abstract 4617

Schoene B, Keller CB (presenter), Samperton KM, Barboni M, Husson J, 2013, A statistical approach to the volcanic-plutonic connection, AGU Fall meeting, San Francisco, CA, abstract 1819810

Barboni M, **Schoene B**, 2013, Growth rates of K-Feldspar megacrysts and the liquid-mush lockup in shallow felsic reservoirs given by U/Pb TIMS-TEA on zircon, GSA meeting Denver, abst # 119-8

Schoene B, Samperton KM, Barboni M, Keller CB, 2013, INVITED: Advances in understanding the timescales of magmatic processes from high-precision U-Pb geochronology, GSA meeting Denver, abstract 87-5

Samperton KM, **Schoene B**, Cottle JM, Crowley JL, Schmitz MD, 2013, Composite plutons, composite zircons: geochronological and geochemical perspectives on zircon stratigraphy and magma evolution from U-Pb TIMS-TEA, GSA meeting Denver, abst # 26-10

Keller CB, **Schoene B**, Barboni M, Samperton K, Husson J, 2013, A statistical approach to the volcanic-plutonic connection, Goldschmidt Conference, Florence, Italy

Schoene B, 2013, MEDAL: Understanding geochemical change on very short and very long timescales, Goldschmidt Conference, Florence, Italy

Schoene B, 2013, INVITED: Weapons for mass extinction: U-Pb geochronology applied to constraining catastrophes, The Geological Society William Smith meeting, London, England

Husson J, **Schoene B**, Maloof A, Blüher S, 2013, Absolute time constraints on the Silurian-

Devonian boundary $\delta^{13}\text{C}$ excursion (invited), The Geological Society William Smith meeting, London, England

Schoene B, Samperton K, Cottle J, Crowley JL, 2012, INVITED: Progress integrating ID-TIMS U-Pb geochronology with accessory mineral geochemistry: towards better accuracy and higher precision time, AGU Fall Meeting, abstract V14B-02.

Bowring SA, Bauer A, Dudas FOL, **Schoene B**, McLean NM, 2012, Steady State Growth of Continental Crust? AGU Fall Meeting, abstract T14B-07.

Barboni M, **Schoene B**, 2012, K-feldspar megacrysts growth and their link to the granitic mush: insight from high precision U-Pb dates (ID-TIMS) and trace elements (TIMS-TEA) on zircon, AGU Fall Meeting, abstract V43D-2882

Samperton K, **Schoene B**, Cottle J, Crowley JL, 2012, Integrated TIMS-TEA/LA-ICPMS constraints on pluton emplacement, Goldschmidt conference, Montreal, Canada, abstract 2248

Keller CB, **Schoene B**, 2012, Secular geochemical evolution linked to atmospheric oxidation, Goldschmidt conference, Montreal, Canada, abstract 2789

Schoene B, Keller CB, 2012, KEYNOTE: Multi-scale geochemical time series constraints on Archean lithosphere formation, Goldschmidt conference, Montreal, Canada, abstract 3069

Schoene B, Samperton K, Schaltegger U, Cottle J, Crowley JL, Brack P, 2012, KEYNOTE: Constraints on pluton assembly through combined accessory mineral geochronology and geochemistry, Adamello 4D meeting, Bagolino, Italy

Schaltegger U, **Schoene B**, Ovtcharova M, Sell B.K., Broderick C.A., Wotzlaw J., 2011, Finding the “true” age: ways to read high-precision U-Pb zircon dates. AGU Fall Meeting, 5.9.12. 2011, San Francisco

Schoene B, Schaltegger U, Samperton K, 2011, U-Pb TIMS-TEA: A new tool for understanding zircon crystallization histories in magmatic systems and interpreting ashbed geochronology, GSA Fall meeting, #43-7

Schoene B, Schaltegger U, Guex J, Bartolini A, 2010, INVITED: Application of U-Pb ID-TIMS dating to the end-Triassic global crisis: testing the limits on precision and accuracy in a multidisciplinary whodunnit. AGU fall meeting, abstract V23C-08.

Blackburn T, Bowring SA, Mahan KH, Perron T, **Schoene B**; Dudas FO, 2010, U-Pb thermochronology of the lower crust: producing a long-term record of craton thermal evolution. AGU fall meeting, abstract T42C-04

- Condon D, McLean NM, **Schoene B**, Bowring S, Mattinson J, Hiess J, Noble SR, Schmitz MD, Crowley JL, Parrish R, 2010, Accuracy of the U-Pb system: tracer calibration, decay constants and other parameters, GSA Fall meeting, #282-2
- McLean NM, Condon D, **Schoene B**, Bowring SA, 2010, The fundamental limits of U-Pb ID-TIMS precision: Propagating underlying systematic uncertainties, GSA Fall meeting, #282-3
- Husson J, Maloof A, **Schoene B**, 2010, Stratigraphic tests for the origin of the deepest carbon-isotope anomaly in Earth history – the Wonoka Formation of South Australia, GSA Fall meeting, #161-9
- Jiang S-Y, Pi D-H, **Schoene B**, 2010, Ages of the key boundaries during the Precambrian-Cambrian interval in South China, GSA Fall Meeting, #144-2
- Schoene B**, Guex J, Bartolini A, Schaltegger U, Blackburn T, 2010, Correlating the end-Triassic mass extinction and flood basalt volcanism at the 100,000-year level by high-precision U-Pb age determinations: Geophysical Research Abstracts, Abstract EGU2010-3701, EGU General Assembly 2010
- Schoene B**, Schaltegger U, Latkoczy C, Günther D, 2009, A new method fingerprinting magmatic processes using combined U/Pb ID-TIMS geochronology and accessory mineral geochemistry: Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract V42A-02
- Barboni M, Bussy F, Ovtcharova M, **Schoene B**, 2009, Thermal evolution of magma reservoirs in the shallow crust and incidence on magma differentiation: the St-Jean-du-Doigt layered intrusion (Brittany, France):, Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract V51A-1631
- Blackburn T, Bowring SA, **Schoene B**, Dudas FO, Mahan KH, 2009, Thermochronology of lower crustal xenoliths: creating a temporal record of lithosphere thermal evolution:, Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract V52C-03
- Schaltegger U, Ovtcharova M, **Schoene B**, 2009, Developments in U-Pb ID-TIMS geochronology - more precision, more accuracy, more fun: Microanalysis, Processes, Time; Edinburgh, UK
- Blackburn T, Bowring SA, **Schoene B**, Mahan K, Dudas FOL, 2009, U-Pb thermochronology of lower crustal xenoliths: creating a temporal record of lithosphere thermal evolution: Microanalysis, Processes, Time; Edinburgh, UK

- Schaltegger U, **Schoene B**, Brack P, 2009, Invited: Taking the Pulse of Magma Emplacement: 19th annual Goldschmidt conference, Abstract 18e/14:30/Fr
- Barboni M, **Schoene B**, Bussy F, Schaltegger U, Gerdes A, 2009, Timing of Injection and of Thermal Maturation in a Mid-Crustal Variscan Bimodal Intrusion: 19th annual Goldschmidt conference, Abstract 18e/14:45/Fr
- Schoene B**, Schaltegger U, Latkoczy C, Günter D, 2009, A New Method Integrating ID-TIMS U-Pb Geochronology with Zircon Trace Element Analysis: 19th annual Goldschmidt conference, Abstract 18e/15:00/Fr
- Bowring S, Bowring J, Condon D, Heizler M, Johnson KR, McLean NM, Parrish R, Ramezani J, **Schoene B**, 2008, The EARTHTIME Initiative: A Review of Progress and Prospects: GSA Joint Annual Meeting, Abstract 141-31
- McLean N, Bowring J, Bowring SA, **Schoene B**, 2008, More Than Just An Age: Quantitative Analysis of Geochronological Data and Uncertainty: GSA Joint Annual Meeting, Abstract 141-28
- Condon D, McLean N, **Schoene B**, Bowring S, Parrish R & Noble S, 2008, Synthetic U-Pb 'standard' Solutions for ID-TIMS Geochronology: 18th annual Goldschmidt conference, Abstract 20d/322/2
- Schaltegger U, Brack P, Ovtcharova M, Peytcheva I, **Schoene B**, Stracke A & Bargossi G, 2008, The Growth of Plutons: How Precisely and Accurately can we Date Incremental Melt Emplacement with U-Pb Zircon (Adamello Intrusion, Northern Italy)?: 18th annual Goldschmidt conference, Abstract 10c/14:45/5
- Schoene B**, Schaltegger U, 2008, Interpreting High-Precision U-Pb Zircon Dates: New Insights from Volcanic and Plutonic Rocks: 18th annual Goldschmidt conference, Abstract A88410c/15:00/5
- Schaltegger U, **Schoene B**, Peytcheva I, 2008, INVITED: Tracking the growth of plutons: the contribution of high-precision U-Pb zircon dating: Geophysical Research Abstracts, Vol. 10, EGU2008-A-01909, SRef-ID: 1607-7962/gra/EGU2008-A-01909, EGU General Assembly 2008
- Bowring SA, Bowring JF, Heizler M, Johnson KR, McLean NM, Parrish R, Ramezani J, **Schoene B**, 2008, The EARTHTIME initiative: A review of progress and prospects, GSA fall meeting 2008.
- Barboni M, Bussy F, **Schoene B**, Schaltegger, U, 2008, Architecture and emplacement mechanisms of the Saint Jean du Doigt bimodal intrusion, Brittany, France: Geophysical

- Schoene B**, Schaltegger U, Ovtcharova M, 2007, Applications of high-precision U-Pb geochronology to the stratigraphic record, 5th annual Swiss Geoscience meeting
- Schaltegger U, **Schoene B**, Bartolini A, Guex J & Ovtcharova M, 2007, Precise Ages for the Triassic/Jurassic Boundary and Hettangian Recovery from Northern Peru, 17th annual Goldschmidt conference, Abstract A884
- Bowring S, Crowley J, Ramezani J, McLean N, Condon D & **Schoene B**, 2007, KEYNOTE: High-Precision U-Pb Zircon Geochronology: Progress and Potential, 17th annual Goldschmidt conference, Abstract A117
- Schoene B** & Bowring S, 2007, Recent Developments in U-Pb Thermochronology, 17th annual Goldschmidt conference, Abstract A901
- Parrish R.R., Noble S.R., Condon D.J., Horstwood M.S., Bowring S., **Schoene B.**, Crowley Q., 2006, Advances in ID-TIMS and LA-MC-ICP-MS U-Pb mass spectrometry with applications to geochronology and environmental U analysis, *EOS Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract V11E-03 Invited
- Parrish R., Bowring S., Condon D., **Schoene B.**, Crowley J., Ramezani J., 2006, EARTHTIME U-Pb tracer for community use: 16th annual Goldschmidt conference, Abstract S1-04
- Schoene B.**, Crowley J., Condon D., Schmitz M., Bowring, S., 2006, Reassessing decay constants through U-Pb ID-TIMS geochronology: Geophysical Research Abstracts, V. 8, SRef-ID: 1607-7962/gra/EGU06-A-04914
- Condon D.J., Bowring S.A., **Schoene B.**, Parrish R., Crowley J.L., Ramezani J., 2006, High-precision U-Pb geochronology and the EARTHTIME initiative: progress and potential: Geophysical Research Abstracts, V. 8, SRef-ID: 1607-7962/gra/EGU06-A-05052
- Condon DJ, **Schoene B**, Bowring SA, Parrish R, Crowley JL, Ramezani J, 2006, Towards the effective elimination of interlaboratory bias in U-Pb ID-TIMS geochronology: Geophysical Research Abstracts, V. 8, SRef-ID: 1607-7962/gra/EGU06-A-06266
- Bowring S.A., Crowley J.L., Flowers R.M., Macphée D., and **Schoene B.**, 2005, High to moderate temperature thermochronology and the maturation of continental lithosphere. *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 344.

- Schoene B.**, Bowring S.A., 2004, Rates and mechanisms of magma emplacement in the Usutu intrusive suite: implications for ca. 3.2 Ga assembly of the Kaapvaal craton. *Geological Society of America Abstracts with Programs*, Vol. 36, No. 5, p. 406.
- Bowring S.A., Flowers R.M., Crowley J.L., **Schoene B.**, Karlstrom K., Williams M.L., 2004, Geochronological and thermochronological constraints on Proterozoic lithospheric evolution, southwestern U.S. *Geological Society of America Abstracts with Programs*, Vol. 36, No. 5, p. 117.
- Schoene B.**, Bowring S.A., 2003, U-Pb apatite and sphene thermochronology documenting mid-crustal temperature gradients during Archean lithospheric stabilization, Kaapvaal craton, southern Africa. *Geological Society of America Abstracts with Programs*, Vol. 35, No. 6, p. 594.
- Schmitz M.D., Bowring S.A., **Schoene B.**, 2003, High-precision U-Pb zircon dates as benchmarks in absolute time. *EOS Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract V22E-05.
- Bowring S.A., Matzel J.P., Karlstrom K.E., Hawkins D.P., **Schoene B.**, 2001, Geochronological and thermochronological constraints on the Proterozoic lithospheric evolution of the Southwest U.S. *Rocky Mountain (53rd) and South-Central (35th) Sections, GSA, Joint Annual Meeting Abstracts with Programs*.
- Schoene B.**, Hawkins D.P., Wiebe R.A., 1999, Field, petrographic, and geochemical characterization of stratigraphy at the base of the Vinalhaven pluton, Vinalhaven Island, ME: Twelfth Keck Research Symposium in Geology Proceedings, April 1999.