

Brad S. Singer

October, 2019

Professor
Department of Geoscience
University of Wisconsin-Madison
1215 W. Dayton Street
Madison, WI 53706

<http://geoscience.wisc.edu/geoscience/people/faculty/brad-singer/>
WiscAr Lab: <https://geochronology.geoscience.wisc.edu>
bsinger@geology.wisc.edu
tel: +1 608 265 8650

EDUCATION

1990 **Ph.D. Geology**, University of Wyoming
1985 **M.S. Geology**, University of New Mexico
1983 **B.A. Geological Sciences**, University of California, Santa Barbara

PROFESSIONAL APPOINTMENTS

2017 summer **Visiting Professor**, Tohoku University, Sendai, Japan
2015 summer **Visiting Professor**, Earth Observatory of Singapore, Nanyang Technological University
2011-2014 **Chair**, Department of Geoscience, University of Wisconsin-Madison
2006-present **Professor**, Department of Geoscience, University of Wisconsin-Madison
2006 **Visiting Scientist**, Laboratoire des Sciences du Climat et de l'Environnement, Gif sur Yvette, France
2003-2006 **Associate Professor**, Department of Geoscience, University of Wisconsin-Madison
1999-2003 **Assistant Professor**, Department of Geoscience, University of Wisconsin-Madison
1993-1998 **Maître Assistant**, Dépt. de Minéralogie, Université de Genève, Genève, Switzerland
1991-1993 **Research Fellow**, Dept. of Geological Sciences, Southern Methodist University, Dallas, TX
1990-1991 **Visiting Assistant Professor**, Dept. of Geological Sciences, Univ. of Michigan, Ann Arbor, MI

AWARDS

2019 **Fellow of the Geological Society of America**
2018 **Union Fellow of the American Geophysical Union**
2016 **Einstein Distinguished Lecturer**, Chinese Academy of Sciences
2012 **Distinguished Alumnus Award**, University of California-Santa Barbara, Dept. of Earth Science
2008-2010 **Vilas Associate Faculty Award**, UW-Madison Graduate School
2006 **Fulbright Scholar, France**, at CEA-CNRS Laboratoire des Sciences du Climat et de l'Environnement
1982 **Outstanding Undergraduate in Field Geology** (Miner Award), UC Santa Barbara

PROFESSIONAL AFFILIATIONS

American Geophysical Union, member 1985-, International Association of Volcanology and Chemistry of the Earth's Interior, member 2003-, The Geological Society of America, member 2004-

SERVICE

External

Associate Editor: *Journal of Geophysical Research Solid Earth* (April 2018-)

Participant: *1st EarthTime-China Summer School*. Gave lectures and tutorials during 6 day short course for 50 students and faculty at China University of Geosciences, Beijing August 4-9, 2018.

Convener: American Geophysical Union Chapman Conference, "*Merging Geophysical, Petrochronologic, and Modeling Perspectives of Large Silicic Magma Systems*". Week long conference brought 79 scientists from 13 countries to Chile January 7-12, 2018.

Science Editor: *Geological Society of America Bulletin* (January 2016 -).

Publications Committee: *Geological Society of America*, (April, 2019-).

Co-organizer: Gordon Research Conference: *Geochronology*. The initial iteration of this biennial conference will bring together 100 scientists in 2019 to identify the most promising frontiers in the field of Geochronology.

Co-convener: NSF EarthRates Research Coordination Network workshop at University of Minnesota, November 10-11, 2017. Workshop brought together 70 earth scientists to begin formulating white paper to help guide future of the NSF Sedimentary Geology and Paleobiology program.

Steering Committee for NSF 'Challenges and Opportunities in Geochronology' document (2014-15).
 Convener: NSF EarthCube workshop "Bringing geochronology into the EarthCube framework". At UW-Madison, Oct. 1-3, 2013. 70 invited participants discussed current status and future needs to manage geochronology data in a cyber-infrastructure framework. (http://earthcube.ning.com/group/geochronology?xg_source=activity).
 Advisory Board member: STEPPE (Sedimentary geology, Time, Environment, Paleontology, Paleoclimate, and Energy) (2012-14). This consortium of the Geological Society of America, Society for Sedimentary Geology, and the Paleontological Society, supported by NSF, promotes research on deep time problems.
 Guest Editor, *special ⁴⁰Ar/³⁹Ar volume of Quaternary Geochronology (2014)*.
 Associate Editor, *Geological Society of America Bulletin (2004-2015)*.
 Editorial Board, *Quaternary Geochronology (2006-2015)*.
 NSF Panel Member, *Sedimentary Geology and Paleobiology Program (November, 2006 - May, 2009)*.
 Standing Member of Scientific Advisory Committee, Paleomagnetism and Geochronology Laboratory, Institute of Geology and Geophysics, *Chinese Academy of Sciences, Beijing (2006-present)*.
 Invited participant: NSF Geoprisms Alaska Primary Site Planning meeting, Portland, OR, Sept. 22-24. Provided input to science plan and gave 10 minute talk on field logistics in the Aleutian Island Arc to 200 scientists.
 Invited participant in NSF workshop: Opportunities for EarthScope Science in Alaska in Anticipation of USArray, Austin, TX, May 16-17, 2011. Gave 40 minute presentation on geochemical and geophysical imaging of the Aleutian Island Arc and provided input to science planning.
 Invited participant: NSF Geoprisms Subduction Cycles and Deformation workshop, Bastrop TX, Jan. 5-7, 2011). Provided input to shaping the new GeoPrisms program during this 3 day workshop attended by 200 scientists.
 Event Supervisor for Dynamic Earth, National Science Olympiad, May 21, 2011. UW-Madison Campus.

UW-Madison

Physical Sciences Division Executive (tenure) Committee (elected to 3-year term; 2009-2012)
 Faculty Senator, 2002-2007.

UW-Madison Department of Geoscience (Major commitments only):

Search Committee Chair for faculty in Isotope Geochemistry (September, 2017-May, 2018).
 Department Chair, July 2011-August, 2014.
 Department Council, 2007-2011; Graduate Studies Committee 1999-2005, Chair; 2007-2011; Repository Committee, Chair, 2009-2011.

COURSES TAUGHT at UW-MADISON

Geology 140: Natural Disasters and Hazards
 Geology 610: Geochronology, Timescales, and Rates of Geological Processes
 Geology 875: Magmatism and structure of the Andes (succeeded by 16-day field trip to Chile & Argentina)
 Geology 302: Physics and Chemistry of the Earth's Interior
 Geology 203: Earth Materials with lab (Petrology and Mineralogy course)
 Geology 370: Elementary Petrology with lab
 Geology 101: Introductory Geology with lab
 Geology 100: Introductory Geology
 Geology 875: Volcanic Geology of the Canary Islands (seminar with 2-week field excursion for graduate students)
 Geology 875: Argon Geochronology: Theory, Methods, and Applications (graduate course)
 Geology 771: Igneous Petrology (graduate course)
 Geology 916: Volcanic Geology of Chile (with 2-week field excursion for graduate students)
 Geology 875: Magmatic and crustal evolution processes (variety of graduate seminars)

GRADUATE, UNDERGRADUATE and POST-DOCTORAL STUDENTS SUPERVISED

PhD students (11) advised	Current occupation
Pablo Moreno-Jaeger	2019- underway
Emily Mixon	2018- underway
Benjamin Bruck	2018- underway
Jacob Klug	2017- underway
Allen Schaen	2018 Research Scientist, University of Arizona
Nathan Andersen	2017 Post-doc, University of Oregon

John Hora	2009	Scientist, Czech Republic Geological Survey, Prague
Brian Jicha	2006	Senior Research Scientist/WiscAr Lab Manager, UW-Madison
Michael Smith	2006 co-advisor	Associate Professor, Northern Arizona University
Daniel Douglass	2005	Instructor, Northeastern University, Boston MA
Fidel Costa	2000 co-advisor	Associate Professor, Nanyang Technological University, Singapore
Thao Ton-That	2001	Environmental consulting industry, Geneva, Switzerland

MS Students (18)

Paola Martinez	2017	Research support staff, SERNAGEOMIN ⁴⁰ Ar/ ³⁹ Ar Lab, Chile
Erin Birsic	2015	Adjunct lecturer, Alleghany College, PA
Allen Schaeen	2014	now post-doc, UW-Madison
Daniel Murray	2011	Wisconsin State Geological Survey
Sarah Siewert	2011	Geologist BP, Houston
Kate Smith	2010	PhD student, University of British Columbia
Sara Greene	2009	Geologist Exxon, Houston
Melissa Harper	2003	Geologist BP, Houston
Kurt Refsnider	2006 co-advisor	Assistant Professor, Prescott College, AZ
Justin Gosses	2006 co-advisor	Geologist, BP, Houston
Richard Becker	2005 co-advisor	PhD student, UW-Madison
Lauren Chetel	2004 co-advisor	Geologist, BP, Aberdeen UK
Miriam Barquero-Molina	2003	Assistant Teaching Professor, University of Missouri-Columbia
Brian Jicha	2002	WiscAr Geochronology lab manager
Monica Relle	2001	High school science teacher, Maine
Michael Smith	2001 co-advisor	Assistant, now Associate Professor, Northern Arizona University
Yann Vincze	1998	Switzerland
Thao Ton-That	1998	Switzerland, Environmental consulting

Post-docs supervised (6)

Youjuan Li	2019-	Chinese Academy of Sciences, EarthTime China project
Allen Schaeen	2018-19	EarthCube cyberinformatics in WiscAr Lab
Brian Jicha	2007-	WiscAr Geochronology lab manager
Michael Kaplan	2000-02	Senior Research Professor, Lamont Doherty, Columbia University
Xifan Zhang	2004-07	Professor in China
Kyle Min	2002-03	Assistant Professor, University of Florida

Undergraduate honors thesis students advised (8)

Alexandra Macho	2012	MSc Geology, University of Arizona
Stephanie Massignan	2012	
Dylan Colon	2011	PhD student, University of Oregon
Sarah Siewert	2009	Geologist, BP Houston, TX
Bill Cassata	2007	PhD UC Berkeley 2012; now at Lawrence Livermore Nat. Lab.
Ben Kirby	2005	MS Geology, The Ohio State University 2008
Brian Allen	2005	
Alissa Naymark	2002	High school science teacher

INVITED 1 hour LECTURES 2012-2019 (total between 1991-2019 = 74)

Gordon Conference on Geochronology, New Hampshire [to take place August 4-9, 2019] Challenges and Opportunities in Synchronizing Geomagnetic Field Behavior Across the Quaternary
 USGS Menlo Park, CA [April 12, 2013] Dynamics and hazards of the large, restless, rhyolitic magma system beneath Laguna del Maule, Chile
 Stanford University [April 11, 2019] Dynamics and hazards of the large, restless, rhyolitic magma system beneath Laguna del Maule, Chile
 University of Wyoming [September 10, 2018] The large, restless, rhyolitic magma system at Laguna del Maule, southern Andes: Its dynamics and hazards
 China University of Geoscience, Wuhan [August 11, 2018] Synchronizing volcanic, sedimentary, and ice core records of Earth's last geomagnetic polarity reversal
 Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing [August 2, 2018] Synchronizing volcanic, sedimentary, and ice core records of Earth's last geomagnetic polarity reversal

Ibaraki University, Japan [July 10, 2017] The $^{40}\text{Ar}/^{39}\text{Ar}$ multi-collector revolution and implications for the Quaternary Geomagnetic Instability Time Scale (GITS)

National Institute of Polar Research, Japan [July 7, 2017] The $^{40}\text{Ar}/^{39}\text{Ar}$ multi-collector revolution and implications for the Quaternary Geomagnetic Instability Time Scale (GITS)

Kumamoto University, Japan [June 29, 2017] The large, restless, rhyolitic magma system at Laguna del Maule, southern Andes: Its dynamics and hazards

Kumamoto University, Japan [June 29, 2017] The $^{40}\text{Ar}/^{39}\text{Ar}$ multi-collector revolution and implications for the Quaternary Geomagnetic Instability Time Scale (GITS)

Tohoku University, Japan [June 22, 2017] The large, restless, rhyolitic magma system at Laguna del Maule, southern Andes: Its dynamics and hazards

University of South Carolina [April 20, 2017] The large, restless, rhyolitic magma system at Laguna del Maule, southern Andes: Its dynamics and hazards

Northern Arizona University [October 6, 2016] The large, restless, rhyolitic magma system at Laguna del Maule, southern Andes: Its dynamics and hazards

China University of Geoscience, Wuhan [July 18, 2016] The large, restless, rhyolitic magma system at Laguna del Maule, southern Andes: Its dynamics and hazards

Institute of Geochemistry, Chinese Academy of Sciences, Guangzhou [July 15, 2016] The large, restless, rhyolitic magma system at Laguna del Maule, southern Andes: Its dynamics and hazards

Institute of Geochemistry, Chinese Academy of Sciences, Guangzhou [July 14, 2016] The multi-collector revolution in $^{40}\text{Ar}/^{39}\text{Ar}$ dating implications for time scale calibration

Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing [July 12, 2016] The multi-collector revolution in $^{40}\text{Ar}/^{39}\text{Ar}$ dating implications for time scale calibration

Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing [July 11, 2016] The large, restless, rhyolitic magma system at Laguna del Maule, southern Andes: Its dynamics and hazards

University of Iowa, [May 6, 2016] The large, restless, rhyolitic magma system at Laguna del Maule, southern Andes: Its dynamics and hazard

15th Congreso Geológico Chileno [October 5, 2015] The Laguna del Maule Volcanic Field: Its Dynamics and Hazards. (invited presentation at National meeting in Chile, >150 attendees)

Earth Observatory of Singapore, Nanyang Technological University [June 9, 2015] Is the next rhyolitic super-eruption brewing in the southern Andes?

University of Concepcion, Chile [October 15, 2014] Is the next rhyolitic super-eruption brewing in the southern Andes?

University of Chile-Santiago [October 10, 2014] Is the next rhyolitic super-eruption brewing in the southern Andes?

Energy Development Corporation, Santiago, Chile [October 9, 2014] Is the next rhyolitic super-eruption brewing in the southern Andes?

University of Wisconsin-Madison [September 12, 2014] Is the next rhyolitic super-eruption brewing in the southern Andes?

Brigham Young University, Provo, UT [February 26, 2014] Evolution of a large, restless, rhyolitic magma system, Laguna del Maule Volcanic Field, southern Andes.

Northwestern University, Evanston, IL [October 11, 2013] Geological, geochemical, and geophysical evidence for rhyolite caldera inception at Laguna del Maule, southern Chilean Andes

University of New England, Biddeford, Maine [October 10, 2013] I gave a University-wide “Core Connections” lecture on the theme of natural disasters to 100 undergraduate students and faculty entitled: *Is the next super-eruption brewing in the Andes?*

Jilin University, Department of Earth Sciences, Changchun, China [July 2, 2013] Geological, geochemical, and geophysical evidence for rhyolite caldera inception at Laguna del Maule, southern Chilean Andes

University of California, Santa Barbara [June 7, 2012] Geological, geochemical, and geophysical evidence for rhyolite caldera inception at Laguna del Maule, southern Chilean Andes

UW-Madison Geoscience Dept. [May 11, 2012] Geological, geochemical, and geophysical evidence for rhyolite caldera inception at Laguna del Maule, southern Chilean Andes

Cornell University, Ithaca, NY [April 19, 2012] Taking the Pulse of the Geodynamo: A Quaternary Geomagnetic Instability Time Scale (GITS)

Cornell University, Ithaca, NY [April 18, 2012] Geological, geochemical, and geophysical evidence for rhyolite caldera inception at Laguna del Maule, southern Chilean Andes

PUBLIC MEDIA, OUTREACH, INTERVIEWS

- August 7, 2019: I granted a dozen interviews for a variety of news and science media outlets interested in a paper on Earth's last magnetic polarity reversal that was published in **Science Advances**. This research was covered by 30 news media sites: <https://advances.sciencemag.org/content/5/8/eaaw4621>, including stories by Newsweek, CNN, Fox News, Scientific American, and Smithsonian Magazine.
- December, 2018: **Scientific American** article, *Hidden Inferno*, by Shannon Hall: <https://www.scientificamerican.com/article/a-supervolcano-with-a-cold-heart-may-be-brewing-in-chile/>. This story features research I have led on understanding how large rhyolitic magma systems evolve, particularly the results from the project at Laguna del Maule, Chile.
- June 28, 2018: **Live Science**: Internet story on *Science Advances* paper on geomorphic expression of magma reservoir growth at Laguna del Maule: <https://www.livescience.com/62934-andean-volcanoes-could-erupt.html>
- May 31, 2018: **Science Café, East High School, Madison, WI**: Two hour discussion with high school students about geology in general and the ongoing eruption of Kilauea Volcano, Hawaii.
- May 25, 2018: **Valley Public Radio/National Public Radio 89 FM, Fresno, CA**: 15 minute interview on the Long Valley Caldera eruption and its context relative to the ongoing eruption at Kilauea Volcano, Hawaii.
- May 17, 2018: **WORT radio Perpetual Notion Machine, Madison, WI**: 30 minute interview on the ongoing eruption of Kilauea Volcano, Hawaii. Podcast available at Thursday May 17 WORT archives: <http://archive.wortfm.org/>
- November, 6, 2017: **New York Times**. The Cool Beginnings of a Volcano's Supereruption, by Shannon Hall. https://www.nytimes.com/2017/11/06/science/the-cool-beginnings-of-a-volcanos-supereruption.html?smid=tw-nytimes&smtype=cur&_r=1. Story about PNAS paper by Andersen et al., 2017 on the Bishop Tuff, California.
- December 13, 2016: **Reuters News**. Potencial erupción de volcán bajo laguna en Los Andes desata preocupación [Potential eruption of volcano under lake in the Andes unleashes concern], by Antonio de la Jara and Rosalba O'brien. <https://lta.reuters.com/article/domesticNews/idLTAKBN1421HV>.
- April 14, 2015: Brad Singer interview on **Teletrece, the national television channel 13 in Chile**. This 3 minute news story: El "súper volcán" de la Laguna del Maule, aired widely in Chile and featured video created by David Tenenbaum, a UW science journalist. <http://www.t13.cl/videos/nacional/volcan-maule>.
- December 2, 2014: **Nature World News**. Chilean Lake May be the Site of a Mega-Eruption, by Jenna Iacurci. <http://www.natureworldnews.com/articles/10820/20141202/chilean-lake-may-be-the-site-of-mega-eruption.htm>. Story about Singer et al. (2014) *GSA Today* paper on Laguna del Maule volcanic field.
- November 8, 2014: **UW News**. UW team explores large, restless volcanic field in Chile, by David Tenenbaum,
- November 11, 2013: **Wired Science**. A Caldera in the Making: The Curious Story of Laguna del Maule, by Erik Klemetti. <http://www.wired.com/wiredscience/2013/11/a-caldere-eruption-in-the-making-the-curious-story-of-laguna-del-maule/>. Story about Singer et al. presentation at the annual Geological Society of America Meeting that became an invited paper about Laguna del Maule in *GSA Today* (Singer et al., 2014).
- September 26, 2008: **Science magazine**, News of the Week. Solid Rock Imposes Its Will on a Core's Magnetic Dynamo, by Richard A. Kerr. <http://science.sciencemag.org/content/321/5897/1756.2>. Story on Science paper by Hoffman and Singer (2008) on new hypothesis for mantle control on the geomagnetic field.

U.S. FEDERAL RESEARCH GRANT AWARDS at UW-MADISON

Principal Investigator on 27 grants (26 NSF, 1 NOAA) between 1999 and 2019 totaling \$9,512,978.

- [27] NSF EAR-1813278, *Collaborative Research: Anatomy of a Greenhouse world: The Early Eocene in the Green River Basin, Wyoming*. 7/12018-6/30/23. \$909,982 [UW portion of \$2.7M Integrated Earth Systems Program grant among 8 institutions; lead PI Alan Carroll, co-PIs Steve Meyers & Brad Singer].
- [26] NSF EAR-1740694, *Collaborative Proposal: EarthCube Integration: Geochronology Frontier at the Laboratory-Cyberinformatics Interface*. 9/1/2017-8/31/2020. \$1,449,662.
- [25] NSF EAR-1650232, *Collaborative Research: Andean plutonic perspectives on the generation, storage, and eruption of rhyolite*. 1/1/2017-5/31/19. \$254,025.
- [24] NSF EAR-1630130. *Collaborative Research: Can Low-Angle Normal Faults Produce Earthquakes? Reading a Pseudotachylyte 'Rosetta Stone'*. 8/1/2016-7/31/2019. \$290,400 (lead PI Laurel Goodwin, Singer co-PI).
- [23] NSF EAR-1411779. *Collaborative Research: Dynamics of caldera-scale rhyolitic magma systems*. 9/1/2014-8/31/2019. \$2,378,419 (lead PI with co-PIs Thurber, Feigl, DeMets, Tikoff, Bennington, Keranen, Dufek, Huber, Unsworth, Williams-Jones).

- [22] NSF EAR-1422819, *Collaborative Research: High-resolution Cretaceous terrestrial climate records of temperature, weathering and hydrologic response to hyperthermals in Songliao Basin, China*. 8/15/2014-7/31/2015. \$71,466 (with co-PIs Chamberlain, Graham, Carroll).
- [21] NSF EAR-1343130, *Earthcube end-users domain workshop: Bringing geochronology into the Earthcube framework*. 6/1/2013-5/31/2014. \$100,000 (with co-PI Shanan Peters).
- [20] NSF EAR-1322595, *RAPID proposal: Accelerating unrest at a large rhyolitic magma system: Laguna del Maule, Chile*. 3/1/13-2/28/14; \$64,000 (co-PI with Basil Tikoff, Cliff Thurber)
- [19] NSF EAR-1250446, *Collaborative Research: An EARTHTIME Chronology for the Matuyama-Brunhes Geomagnetic Field Reversal*. \$399,713 UW-Madison portion (3/1/2013-2/28/2016) co-PIs B. Jicha and R. Coe.
- [18] NSF EAR-114494, *Collaborative Research: A 21st century Reconnaissance of the Aleutian Arc*. \$217,341 (4/1/12-3/31-2014), co-PI with UW-Madison lab manager B. Jicha as PI, and S. Kay co-PI.
- [17] NSF EAR-0943584, *Collaborative Research: Morphology and Timing of the Reunion/Huckleberry Ridge Event(s)*. \$84,022 (9/1/10-8/31/12). With Joshua Feinberg and Ken Hoffman.
- [16] NSF EAR-0959108, *Collaborative Research: Integrating Radioisotopic and Astronomical Time Scales for the Cretaceous*. \$418,600 (5/1/2010-4/30/14). With S. Meyers and B. Sageman co-PIs.
- [15] NSF OCE-0825659, *Collaborative Research: Temporal evolution of submarine Mauna Loa provides insights into the nature of the Hawaiian plume*. \$102,866 (9/1/08-8/31/10). With J.M. Rhodes.
- [14] NSF EAR-0741794, *Acquisition of a multi-collector mass spectrometer for the UW Madison Rare Gas Geochronology Laboratory*. \$370,000 (3/1/08-2/29/09). Brian Jicha co-PI.
- [13] NSF EAR-0738007, *Lying in Wait? Evolution of dacite beneath Santa Maria Volcano, Guatemala*. \$337,706 (1/1/08-12/31/11). Brian Jicha co-PI.
- [12] NSF EAR-0538159, *Collaborative Research: Spatiotemporal Evolution of the Neogene Ignimbrite Flare-up in the Altiplano-Puna Volcanic Complex, Central Andes: Insights into the Development of Large Silicic Magmatic Systems*. \$100,355 (4/15/06-3/31/09).
- [11] NSF EAR-0516760, *Phase II technician support for the UW-Madison Rare Gas Geochronology Laboratory*, \$88,006 (9/1/05-8/31/07).
- [10] NSF EAR-0439155, *Collaborative Research: Paleomagnetism and geochronology of the Mono Lake Event recorded in the lava flow sequence of Santa Maria volcano, Guatemala*, \$50,092 (1/1/05-12/31/06).
- [9] NSF EAR-0337667, *A new generation of timescales for arc magmatic processes*. \$427,036, co-PIs: C. Johnson, B. Beard. (1/1/04 - 12/31/07).
- [8] NSF EAR-0337684, *A geomagnetic instability timescale for the Pleistocene*. \$302,596 (1/1/04 - 12/31/07).
- [7] NOAA-National Undersea Research Program, *Primitive plutonism in an island arc, a study of deep submarine canyons in the western Aleutian arc*. \$31,040, co-PIs: Yagodzinski, Keleman, Scholl (6/1/04-5/31/05).
- [6] NSF EAR-0114055, *Technician support for the University of Wisconsin Rare Gas Geochronology Laboratory*. \$128,688 (9/15/01 - 8/31/04).
- [5] NSF ATM-0212450, *Glacial and paleoclimate record of the southern Andes, 46°S, for the late Pleistocene*. \$330,274, co-PIs: D. Mickelson, J. Bockheim (9/01/02 - 8/31/05).
- [4] NSF EAR-0230123, *Quantifying the temporal evolution of Eocene Lake Gosiute*. \$268,003, co-PI: A. Carroll (6/01/03-5/31/06).
- [3] NSF ATM-0081852, *Sedimentary response of large lakes to climate change: Direct measurement using high-precision ⁴⁰Ar/³⁹Ar geochronology*. \$124,475, co-PI A. Carroll (8/1/00 - 7/31/02).
- [2] NSF EAR-9909309, *Temporal constraints on geomagnetic field behavior from high-precision ⁴⁰Ar/³⁹Ar geochronology*. \$179,992 (3/1/00 - 2/28/03).
- [1] NSF EAR-9972851, *Acquisition of an ultra-sensitive mass spectrometer for the University of Wisconsin Rare Gas Geochronology Laboratory*. \$151,560 (12/15/99 - 11/30/02).

Grants on which Singer is a Co-Principal Investigator at UW-Madison (total of these awards \$3,621,650)

- [5] NSF EAR-1337156, *Acquisition of a modern electron microprobe*. \$960,312. co-PI with J Fournelle, C-B Eom, J. Valley, L. Goodwin. (8/1/13 - 7/31/14).
- [4] NSF EAR-1321939, *Collaborative research: Paleogeographic Record of Contractional to Extensional Tectonics in the Cordilleran Hinterland, Nevada*. \$56,024 UW-Madison portion. co-PI with E. Cassel (PI), M. Smith, and B. Jicha (co-PIs). (9/1/13 to 8/31/16)
- [3] NSF EAR-06251678, *Collaborative Research: Late-Quaternary Glacial and Paleoclimate History of the Uinta Mountains, Utah*, \$228,216, PI: D.M. Mickelson, co-PI: B.S. Singer (1/1/04 to 12/31/06).
- [2] NSF (Instrumentation and Facilities Program) *Acquisition of an ion microprobe for stable isotope analysis*. \$2,000,000, PI: J. Valley, co-PIs: C. Johnson, C. Kelly, D. Shoeller, B.S. Singer (7/01/03-6/30/05).
- [1] NSF subaward to U. South Carolina (Marine Geology & Geophysics Program), *Collaborative Research on primitive magmatism and crustal genesis in an island arc*. \$30,767, co-PI: B.S. Singer (6/1/04 - 5/31/06).

SWISS RESEARCH GRANT AWARDS

6 grants as PI at the University of Geneva between 1994 and 1999 (total: 473,000 Swiss Francs/\$500,000 USD)

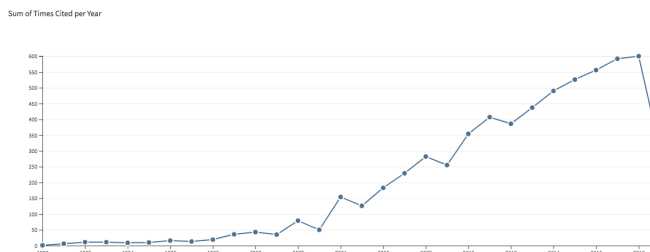
- [6] **Swiss NSF 20-050867.97:** *Chronology of the Matuyama-Brunhes geomagnetic polarity reversal and late Quaternary glaciations in the Southern Hemisphere*, 119,544 SFr (1997-99). PI: Singer.
- [5] **Swiss NSF 21-049110.96:** *⁴⁰Ar/³⁹Ar dating of young (<50 ka) tephra and lava in marine and terrestrial settings*, 127,083 SFr (1997-99). PI: Singer.
- [4] **Swiss NSF 7BUPJ048659:** *Origin of epithermal gold in Bulgaria: constraints on the timing of magmatism, alteration, and mineralization from ⁴⁰Ar/³⁹Ar geochronology*, 28,000 SFr. (1997-1998). PI: Singer.
- [3] **Ernst and Lucie Schmidheiny Foundation:** *Acquisition of a dual wavelength laser probe for the University of Geneva ⁴⁰Ar/³⁹Ar geochronology laboratory*, 80,000 Sfr (co-PI).
- [2] **Swiss NSF 21-43077.95:** *Timing of Pleistocene glaciations in the Southern Hemisphere from ⁴⁰Ar/³⁹Ar dating of volcanic materials in the Lago Buenos Aires moraines, Argentina*, 18,415 SFr. PI: Singer.
- [1] **Swiss NSF 21-045462.95:** *Acquisition of an infrared and ultraviolet laser probe for argon extraction and ⁴⁰Ar/³⁹Ar geochronology from micro-samples*, 100,000 SFr (co-PI w/ M. Dungan, L. Fontboté).

OTHER GRANTS

- [6] **National Geographic Society:** *Southern Andes Fire and Ice Research and Education (SAFIRE) Project*, (2018-2019), 20,000 USD. PI: Singer.

CITATION METRICS

- Thomson Reuters ISI 6218 citations 7/24/2019
- 166 ISI peer-reviewed publications
- ISI h index = 47



- Google Scholar 9459 citations 10/1/2019
- h index = 57. 30 papers cited more than 100 times each
<http://scholar.google.com/citations?user=qwQZoOIAAAAJ&hl=en&oi=ao>

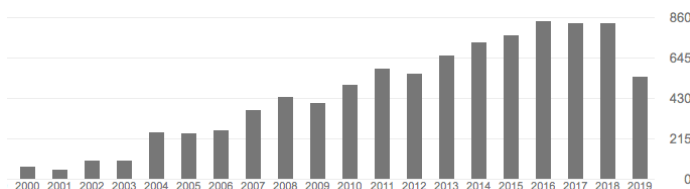


Brad S Singer

University of Wisconsin-Madison

Verified email at geology.wisc.edu - [Homepage](#)

[geochronology](#) [volcanology](#) [igneous petrology](#) [geochemistry](#) [geophysics](#)



Cited by

[VIEW ALL](#)

	All	Since 2014
Citations	9459	4596
h-index	57	40
i10-index	148	110

PEER-REVIEWED ARTICLES 1986-2019

(Student or post-doc names underlined>; chapters in edited volumes denoted *)

submitted/in review/in preparation

- [177] Schaen, A.J., Jicha, B.R., Hodges, K., Vermeesch, P., Stelton, M., **Singer, B.S.**, On the reporting and interpretation of ⁴⁰Ar/³⁹Ar geochronologic data. *In preparation as submission to series of invited papers in Geological Society of America Bulletin.*

- [176] Edwards, B.R., Russell, J.K., Jicha, B., **Singer, B.**, Dunnington, G., Jansen, R. A three-million year record of volcanism and glaciation in northern British Columbia. *Geological Society of America Special Paper*, volume dedicated to Stephen Porter, in press.

2019

- [175] Sieh, K., Herrin, J., Jicha, B., Banerjee, P., Sconwalder, D., Wiwegwin, W., Moore, J.D.P., Sihaving, V., **Singer, B.S.**, Cualauwanich, T., Charusiri, P., and Singsomboun, K., Impact Crater of the Australasian Tektites Buried under the Bolaven Plateau Volcanic Field, Southern Laos. *in press, Proceedings of the National Academy of Sciences*.
- [174] **Singer, B.S.**, Jicha, B.R., Mochizuki, N., Coe, R.S. (2019) Synchronizing volcanic, sedimentary, and ice core records of Earth's last magnetic polarity reversal. *Science Advances*, v. 5, no. 8, eaaw4621, <https://advances.sciencemag.org/content/5/8/eaaw4621>.
- [173] Canada, A.S., Cassell, E.J., McGrew, A.J., Smith M. Elliot, Stockli, D.F., Foland, K., Jicha, B.R., **Singer, B.S.** (2019) Eocene exhumation and extensional basin formation in the Copper Mountains, Nevada, U.S.A. Accepted for publication in *Geosphere*, v. 15, <https://doi.org/10.1130/GES02101.1>.
- [172] Jicha, B.R., **Singer, B.S.**, Li, Y. (2019) Intercalibration of $^{40}\text{Ar}/^{39}\text{Ar}$ laboratories in China, USA, and Russia for Emeishan volcanism and the Guadalupian-Lopingian boundary, *National Science Review*, nwz044, <https://doi.org/10.1093/nsr/nwz044>.
- [171] Canada, A.S., Cassell, E.J., Stockli, D.F., Smith M. Elliot, Jicha, B.R., **Singer, B.S.** (2019) Accelerating exhumation in the Eocene Sevier-Laramide hinterland: Implications from detrital zircon (U-Th)/(He-Pb) double dating. *Geological Society of America Bulletin*, <https://doi.org/10.1130/B35160.1>.
- [170] Andersen, N.L., **Singer, B.S.**, Coble, M.A. (2019) Repeated Rhyolite Eruption from Heterogeneous Hot Zones Embedded Within a Cool, Shallow Magma Reservoir. *Journal of Geophysical Research*. doi.org/10.1029/2018JB016418.
- [169] Wespestad, C., Thurber, C., Andersen, N.L., **Singer, B.S.**, Cardona, C., Zeng, X., Bennington, N., Keranan, K., Peterson, D. (2019) Magma body beneath Laguna del Maule Volcanic Field imaged with surface wave tomography. *Journal of Geophysical Research Solid Earth*. doi.org/10.1029/2018JB016485.

2018

- [168] Marsicek, J., Goring, S.J., Marcott, S.A., Meyers, S.R., Peters, S.E., Ross, I.A., Singer, B.S., Williams, J.W. (2018) Automated extraction of spatiotemporal geoscientific data from the literature using GeoDeepDive. *Past Global Changes*, v. 262(2), 70. <https://doi.org/10.22498/pages.26.2.70>
- [167] Garibaldi, N., Tikoff, B., Schaen, A.J., and **Singer, B.S.** Interpreting granitic fabrics in terms of rhyolitic melt segregation, accumulation and escape via tectonic filter pressing in the Huemul pluton, Chile. *Journal of Geophysical Research Solid Earth* <https://doi.org/10.1029/2018JB016282>
- [166] Schaen, A.J., **Singer, B.S.**, Cottle, J.M., Garibaldi, N., Schoene, B., Satkowski, A.M., and Fournelle, J. A Textural and Mineralogical Record of Melt Extraction and Silicic Cumulate Formation in a Young Epizonal Andean Pluton. accepted pending minor revisions: *Journal of Petrology*. egy087, <https://doi-org.ezproxy.library.wisc.edu/10.1093/petrology/egy087>
- [165] **Singer, B.S.**, Le Mével, H., Licciardi, J.M., Córdova, L., Tikoff, B., Garibaldi, N., Diefenbach, A.K., Andersen, N.L., Feigl, K.L. (2018) Geomorphic expression of rapid Holocene silicic magma reservoir growth beneath Laguna del Maule, Chile. *Science Advances* 4, eaat1513, <https://doi.org/10.1126/sciadv.aat1513>.
- [164] Andersen, N.L., **Singer, B.S.**, Costa, F., Fournelle, J., Herrin, J., Fabbro, G. (2018) Petrochronologic perspective on rhyolite volcano unrest at Laguna del Maule, Chile. *Earth and Planetary Science Letters*, v. 493, 57-70. <https://doi.org/10.1016/j.epsl.2018.03.043>.
- [163] Shtober-Zisu, N., Inbar, M., Mor, D., Jicha, B.R. and **Singer, B.S.**, (2018) Drainage development and incision rates in an Upper Pleistocene Basalt-Limestone Boundary Channel: The Sa'ar Stream, Golan Heights, Israel. *Geomorphology*, 303, 417-433.

- [162] Martinez, P., **Singer, B.S.**, Moreno-Roa H., Jicha, B.R. (2018) Volcanologic and petrologic evolution of Antuco-Sierra Velluda, Southern Andes, Chile. *Journal of Volcanology and Geothermal Research*, 349, 392-408.

2017

- [161] Andersen, N.L., Jicha, B.R., **Singer, B.S.**, Hildreth, W. (2017) Incremental heating of Bishop Tuff sanidine reveals pre-eruptive radiogenic Ar and rapid remobilization from cold storage. *Proceedings of the National Academy of Science*, www.pnas.org/cgi/doi/10.1073/pnas.1709581114. 6 pages.
- [160] Smith, M.E., Cassel, E.J., Jicha, B.R., **Singer B.S.**, Canada, A.S. (2017) Hinterland drainage closure and lake formation in response to middle Eocene Farallon slab removal, Nevada, U.S.A. *Earth and Planetary Science Letters*, v. 479, 156-169. doi.org/10.1016/j.epsl.2017.09.023
- [159] Schaen, A.J., Cottle, J.M., **Singer, B.S.**, Keller, C.B., Garibaldi, N. and Schoene, B. (2017) Complementary crystal accumulation and rhyolite melt segregation in a late Miocene Andean pluton. *Geology*, 45, 835-838. [doi:10.1130/G39167.1](https://doi.org/10.1130/G39167.1)
- [158] Andersen, N.L., **Singer, B.S.**, Jicha, B.R., Beard, B.L., Johnson, C.M., and Licciardi, J.M., (2017) Pleistocene to Holocene Growth of a Large Upper Crustal Rhyolitic Magma Reservoir beneath the Active Laguna del Maule Volcanic Field, Central Chile. *Journal of Petrology*, v. 58, 85-114. [doi: 10.1093/petrology/egx006](https://doi.org/10.1093/petrology/egx006)
- [157] Naranjo, J.A., **Singer, B.S.**, Jicha, B.R., Moreno, H., Lara, L.E. (2017) Holocene tephra succession of Puyehue-Cordón Caulle and Antillanca/Casablanca volcanic complexes, southern Andes (40-41 °S). *Journal of Volcanology and Geothermal Research*, v. 332, 109-128. <http://dx.doi.org/10.1016/j.jvolgeores.2016.11.017>.
- [156] Guillou, H., Hémond, C., **Singer, B.S.** and Dyment, J. (2017) Dating young MORB of the Central Indian Ridge (19° S): Unspiked K-Ar technique limitations versus ⁴⁰Ar/³⁹Ar incremental heating method. *Quaternary Geochronology*, v. 37, p. 42-54. <http://dx.doi.org/10.1016/j.quageo.2016.10.002>.

2016

- [155] **Singer, B.S.**, Costa, F., Herrin, J.S., Hildreth, W., Fierstein, J. (2016) The timing of compositionally-zoned magma reservoirs and mafic 'priming' weeks before the 1912 Novarupta-Katmai rhyolite eruption. *Earth and Planetary Science Letters*, v. 451, p. 125-137.
- [154] Wang, P.-J., Mattern, F., Didenko N.A., Zhu, D.-F., **Singer, B.**, Sun, X.-M. (2016) Tectonics and cycle system of Cretaceous Songliao Basin: An inverted active continental margin basin. *Earth-Science Reviews*, v. 159, 82-102.
- [153] Lhuillier, F., Gilder, S.A., Wack, M. He, K., Petersen, N., **Singer, B.S.**, Jicha, B.R., Schaen, A., Colon, D. (2016) More stable yet bimodal geodynamo during the Cretaceous superchron. *Geophysical Research Letters*, v. 43, p. 6170-6177.
- [152] Rozenbaum, A.G., Sandler, A., Zilberman, E., Stein, M., Jicha, B.R., **Singer B.S.** (2016) ⁴⁰Ar/³⁹Ar chronostratigraphy of Late Miocene-Early Pliocene continental aquatic basins in SE Galilee, Israel, *GSA Bulletin*, published on-line doi:10.1130/B31239.1
- [151] Jicha, B.R., **Singer, B.S.**, Sobol, P. (2016) Re-evaluation of the ages of ⁴⁰Ar/³⁹Ar sanidine standards and supereruptions in the western U.S. using a Noblesse multi-collector mass spectrometer. *Chemical Geology* v. 431, p. 54-66.
- [150] Harrison, T.M., Baldwin, S., Caffee, M., Gehrels, G., Schoene, B., Shuster, D., **Singer, B.** (2016) Geochronology: It's About Time, *EOS*, v. 97, p. 12-13.
- [149] Batenburg, S., De Vleeschouwer, D., Sprovieri, M., Hilgen, F.J., Gale, A.S., **Singer, B.S.**, Koeberl, C., Coccioni, R., Claeys, P., and Montanari, A. (2016) Orbital control on the timing of oceanic anoxia in the Late Cretaceous. *Climate of the Past*, doi:10.5194/cp-2015-182.

- [148] Schaen, A., Jicha, B.R., **Singer, B.S.**, Kay, S.M., Tibbetts, A. (2016) Eocene to Pleistocene magmatic evolution of the Delarof Islands, Aleutian Arc. *Geophysics, Geochemistry, Geosystems*, doi: 10.1002/2015GC006067.

2015

- [147] Jicha, B.R., Laabs, B.J.C., Hora, J.M., **Singer, B.S.**, Caffee, M.W. (2015) Early Holocene collapse of Volcan Parinacota, Central Andes, Chile: volcanological and paleohydrological consequences. *Geological Society of America Bulletin*, v. 127, 1681-1688.
- [146] Meyers, S.M., **Singer, B.S.**, Schmitz, M.D. (2015) Exploring radioisotopic geochronology and astrochronology; IsoAstro Geochronology Workshop: The integration and intercalibration of radioisotopic and astrochronologic time scales. *EOS*, 96, no. 2., p. 9.
- [145] Medaris, Jr., L.G., Boerboom, T.J., Jicha, B.R., **Singer B.S.**, (2015) Metasaprolite in the McGrath Gneiss, Minnesota, USA: viewing Paleoproterozoic weathering through a veil of metamorphism and metasomatism. *Precambrian Research*, v. 257, p. 83-93. doi:10.1016/j.precamres.2014.11.027.

2014

- [144] Smith, M.E., Carroll, A.R., Scott, J.J., and **Singer B.S.** (2014) Early Eocene carbon isotope excursions and landscape destabilization at eccentricity minima: Green River Formation of Wyoming. *Earth and Planetary Science Letters*, v. 403, p. 393-406.
- [143] **Singer, B.S.**, Andersen, N.L., Le Mével, H., Feigl, K.F., DeMets, C., Tikoff, B., Thurber, C.H., Jicha B.R., Cardona, C., Córdova, L., Gil, F., Unsworth, M.J., Williams-Jones, G., Miller, C., Hildreth, W., Fierstein, J., Vazquez, J. (2014) Dynamics of a large, restless, rhyolitic magma system at Laguna del Maule, southern Andes, Chile. *Geological Society of America Today*. v. 24, 4-10.
- [142] **Singer B.S.**, Jicha, B.R., Condon, D., Macho A., Hoffman K.A., Brown, M., Feinberg, J., Kidane, T. (2014) Precise ages of the Réunion event and Huckleberry Ridge excursion: episodic clustering of geomagnetic instabilities and the dynamics of flow within the outer core. *Earth & Planetary Science Letters*, v. 405, p. 25-38.
- [141] **Singer, B.S.**, Jicha, B.R., He, H., Zhu, R. (2014) Geomagnetic field excursion recorded 17 ka at Tianchi Volcano, China: New $^{40}\text{Ar}/^{39}\text{Ar}$ age and significance. *Geophysical Research Letters*. v. 41, p. 2794–2802. <http://dx.doi.org/10.1002/2014GL059439>.
- [140] **Ma, C.**, Meyers, S. M., Sageman, B.B., **Singer, B.S.**, Jicha B.R. (2014) Testing the astronomical time scale for oceanic anoxic event 2, and its extension into Cenomanian strata of the Western Interior Basin (USA), *Geological Society of America Bulletin*, v. 126, p. 974-989. <http://dx.doi:10.1130/B30922.1>.
- [139] Sageman, B.B., **Singer, B.S.**, Meyers, S.R, **Siewert, S.R.**, Walaszczyk, I., Condon, D.J., Jicha, B.R., Obradovich, J.D., Sawyer, D.A. (2014) Integrating $^{40}\text{Ar}/^{39}\text{Ar}$, U-Pb, and astronomical clocks in the Cretaceous Niobrara Formation, Western Interior Basin, USA. *Geological Society of America Bulletin*, v. 126, p 956-973. <http://dx.doi:10.1130/B30929.1>.
- [138] Jay, J.A., Costa, F., Pritchard, M.E., Lara, L.E., **Singer, B.**, Herrin, J. (2014) Locating magma reservoirs using InSAR and petrology before and during the 2011-2012 Cordon Caulle silicic eruption, *Earth and Planetary Science Letters*, v. 395, p. 254-266. <http://dx.doi.org/10.1016/j.epsl.2014.03.046>
- [137] **Singer B.S.** (2014) guest editor, Quaternary Geochronology special issue: Advances in $^{40}\text{Ar}/^{39}\text{Ar}$ dating of Quaternary events and processes. *Quaternary Geochronology*. v. 21, p. 1, <http://dx.doi.org/10.1016/j.quageo.2013.11.005>.
- [136] **Singer, B.S.** (2014) A Quaternary geomagnetic instability time scale *Quaternary Geochronology*, v. 21, p. 29-52, <http://dx.doi.org/10.1016/j.quageo.2013.10.003>.
- [135] Clyde, W.C., Wilf, P., Iglesias, A., Barnum, T., Bijl, P.K., Bralower, T.J., Comer, E.E., Huber, B.T., Ibanez-Mejia, M., Jicha, B.R., Marcelo Krause, J., Schueth, J.D., **Singer, B.S.**, Slingerland, R.L., Sol Raigemborn, M., Schmitz, M.D., Sluijs, A., Del Carmen Zamalao, M. (2014) New age constraints for the Salamanca

Formation and lower Río Chico Group in the western San Jorge Basin, Patagonia (Argentina); Implications for K/Pg extinction recovery and land mammal age correlations. *Geological Society of America Bulletin* v. 126, no. 3-4, p. 289-306. <http://dx.doi.org/10.1130/B30915.1>.

- [134] **Singer, B.S.**, Guillou, H., Jicha, B.R., Zanella, E., Camps, P. (2014) Refining the Quaternary geomagnetic instability time scale (GITS): Lava flow recordings of the Blake and Post-Blake excursions. *Quaternary Geochronology*. v. 21, p. 16-28, <http://dx.doi.org/10.1016/j.quageo.2012.12.005>.
- [133] ***Singer, B.S.**, Jicha, B.R., Fournelle, J.H., Beard, B.L., Johnson, C.M., **Smith, K.E.**, **Greene, S.E.**, Kita N.T., Valley, J.W., Spicuzza M.J., Rogers, N.W. (2014) Lying in wait: Deep and shallow evolution of dacite beneath Volcán de Santa María, Guatemala. in: *Orogenic Andesites and Crustal Growth*, eds. A. Tuena-Gomez, S. Straub, G. Zellmer, *Geological Society of London Special Publications* 385, <http://dx.doi.org/10.1144/SP385.2>.
- [132] Feigl, K.L., **Le Mevel, H.**, Ali, S.T., Cordova, L., **Andersen, N.L.**, DeMets, C., **Singer, B.S.** (2014) Rapid uplift in Laguna del Maule volcanic field of the Andean Southern Volcanic Zone (Chile) 2007-2012. *Geophysical Journal International*. v, 196, p. 885-901. <http://dx.doi.org/10.1093/gji/ggt438>.

2013

- [131] Brown, M.C., Jicha, B.R., **Singer, B.S.**, Shaw, J. (2013) Snapshot of the Matuyama-Brunhes reversal process recorded in $^{40}\text{Ar}/^{39}\text{Ar}$ -dated lavas from Guadeloupe, West Indies. *Geophysics, Geochemistry, Geosystems* v. 14, issue 10, p. 4341-4350, doi: 10.1002/ggge.20263.
- [130] Jicha, B.R., **Singer, B.S.**, Valentine, M.J. (2013) $^{40}\text{Ar}/^{39}\text{Ar}$ Geochronology of Subaerial Ascension Island and a Re-evaluation of the Temporal Progression of Basaltic to Rhyolitic Volcanism. *Journal of Petrology* v. 54, p. 2581-2596.
- [129] Panaiotu, C., Jicha, B.R., **Singer, B.S.**, Tugui A., Seghedi, I., Panaiotu, A.G., Necula, C. (2013) $^{40}\text{Ar}/^{39}\text{Ar}$ chronology and paleomagnetism of Quaternary basaltic lavas from the Persani Mountains (East Carpathians) *Physics of the Earth and Planetary Interior*. v. 221, p. 1- 14, <http://dx.doi.org/10.1016/j.pepi.2013.06.007>.
- [128] Ort, M.H., DeSilva, S.L., Jimenez, N., Jicha, B.R., **Singer, B.S.** (2013) Correlation of ignimbrites using characteristic remanent magnetism and anisotropy of magnetic susceptibility, Central Andes, Bolivia. *Geophysics, Geochemistry, Geosystems*, v. 14, doi:10.1029/2012GC004276.

2012

- [127] Jicha, B.R., Rhodes J.M., **Singer, B.S.**, Garcia, M.O. (2012) $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology of submarine Mauna Loa volcano, Hawaii. *Journal of Geophysical Research*, v. 117, doi: 10.1029/2012JB009373.
- [126] Zhu, Y.J., Bhattacharya, J.P., Li, W.G., Lapen, T.J., Jicha, B.R., **Singer, B.S.** (2012) Milankovitch-scale sequence stratigraphy and stepped forced regressions of the Turonian Ferron Notom deltaic complex, south-central Utah, USA. *Journal of Sedimentary Research*, v. 82, p. 723-746.
- [125] **Lukens, C.E.**, Carrapa, B., **Singer, B.S.**, Gehrels, G. (2012) Miocene exhumation revealed by detrital minerals of the Tajik rivers: Implications for the tectonic evolution of the Pamir. *Tectonics*, v. 31, (published online, doi: 10.1029/2011TC003040).
- [124] **Murray, D.S.**, Carlson, A.E., **Singer, B.S.**, Anslow, F.S., He, F., Caffee, M., Marcott, S.A., Liu, Z., Otto-Bliesner, B.L. (2012) Northern Hemisphere forcing of the last deglaciation in Patagonia. *Geology*, published online April 27, 2012; doi: 10.1130/G32836.1).
- [123] Jicha, B.R., Coombs, M.L., Calvert, A.T., **Singer, B.S.** (2012) Geology and $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology of the medium- to high-K Tanaga volcanic cluster, western Aleutians. *Geological Society of America Bulletin*, v. 124, p. 842-856.
- [122] Meyers, S.R., **Siewert, S.E.**, **Singer, B.S.**, Sageman, B.B., Condon, D., Obradovich, J.D., Jicha, B.R., Sawyer, D.A. (2012) Inter-calibration of Radioisotopic and astrochronologic time scales for the Cenomanian/Turonian boundary Interval, Western Interior Basin, USA. *Geology*, v. 40, p. 7-10.

2011

- [121] Kay, S.M., Coira, B., Worner, G., Kay, R.W., **Singer, B.S.** (2011) Geochemical, isotopic and single crystal $^{40}\text{Ar}/^{39}\text{Ar}$ age constraints on the evolution of the Cerro Galán ignimbrites. *Journal of Volcanology and Geothermal Research*, v. 73, p. 1487-1511.
- [120] Smith, M.E., **Singer, B.S.**, Simo, T. (2011) A time like our own? Radioisotopic calibration of the Ordovician greenhouse to icehouse transition. *Earth and Planetary Science Letters*, v. 311, p. 364-374.
- [119] **Singer, B.S.**, Smith, K.E., Jicha, B.R., Johnson, C.M., Beard, B.L., Rogers, N.W. (2011) Tracking open-system differentiation during the growth of Santa María Volcano, Guatemala. *Journal of Petrology*, v. 52, p. 2335-2363.
- [118] Jicha, B.R., Kristjánsson, L., Brown, M.C., **Singer, B.S.**, Beard, B.L., Johnson, C.M. (2011) New age for the Skálamælifell excursion and identification of a global geomagnetic event in the late Brunhes chron, *Earth & Planetary Science Letters*, v. 310, 509-517.
- [117] Salisbury, M.J., Jicha, B.R., de Silva, S.L., **Singer, B.S.**, Jiménez, N.C., Ort, M.H. (2011) $^{40}\text{Ar}/^{39}\text{Ar}$ chronostratigraphy of Altiplano-Puna Volcanic Complex ignimbrites reveals the development of a major magmatic province. *Geological Society of America Bulletin*, v. 123, p. 821-840.
- [116] Walker, J.A., **Singer, B.S.** Jicha, B.R., Cameron, B.I., Carr, M.J., Olney, J.L. (2011) Monogenetic, behind-the-front volcanism in southeastern Guatemala and western El Salvador: $^{40}\text{Ar}/^{39}\text{Ar}$ ages and tectonic implications. *Lithos*, v. 123, p. 243-253.
- [115] Camps, P., **Singer, B.S.**, Carvallo, C., Goguitchaichvili, A., Fanjat, G, Allen., B. (2011) The Kamikatsura event and the Matuyama-Brunhes Reversal recorded in lavas from Tjörnes Peninsula, Northern Iceland. *Earth and Planetary Science Letters*, v. 310, p. 33-44.
- [114] Chetel, L., Janecke, S.U., Carroll, A.R., Beard, B.L., Johnson, C.M., **Singer, B.S.** (2011) Paleogeographic reconstruction of the Eocene Idaho River, North American Cordillera. *Geological Society of America Bulletin*. V. 123, p. 71-88. doi: 10.1130/B30213.1.

2010

- [113] Hildreth, W., Godoy, E., Fierstein, J., **Singer, B.** (2010) Laguna del Maule Volcanic Field: Eruptive history of a Quaternary basalt-rhyolite distributed vent volcanic field on the Andean rangecrest in central Chile. *Servicio Nacional de Geología y Minería, Boletín* 63, 145 pp. Santiago, Chile.
- [112] Zimmer, M.M., Plank, T., Hauri, E.H., Yogodzinski, G.M., Stelling, P., Larsen, J., **Singer, B.**, Jicha, B., Mandeville, C., Nye, C.J. (2010) The role of water in generating the calc-alkaline trend: New volatile data for Aleutian Magmas and a new tholeiitic index. *Journal of Petrology*, doi: 10.1093/ptrology/egq062
- [111] Channell, J.E.T., Hodell, D.A., **Singer, B.S.**, Huang, C. (2010) Reconciling astrochronological and $^{40}\text{Ar}/^{39}\text{Ar}$ ages for the Matuyama-Brunhes boundary and late Matuyama Chron. *Geochemistry, Geophysics, Geosystems*. doi:10.1029/2010GC003203.
- [110] Hora, JM, **Singer, BS**, Jicha, BR, Beard, BL, Johnson, CM, de Silva, SL, Salisbury, ML (2010) Biotite-sanidine $^{40}\text{Ar}/^{39}\text{Ar}$ age discordances reflect complex Ar partitioning and pre-eruption closure in biotite. *Geology*, v. 38, p. 923-926.
- [109] Jicha, BR, Smith, KE, **Singer, BS**, Beard, BL., Johnson, CM (2010) Crustal Assimilation no match for slab-fluids beneath Volcán de Santa María, Guatemala. *Geology*, v. 38, p. 859-862.
- [108] Cassata, W.S., **Singer, BS**, Liddicoat, JC, Coe, RS. (2010) Reconciling discrepant chronologies for the geomagnetic excursion in the Mono Basin, California: Insights from new $^{40}\text{Ar}/^{39}\text{Ar}$ dating experiments and a revised relative paleointensity correlation. *Quaternary Geochronology*, v. 5, p. 533-543.

- [107] Wilf, P., **Singer, B.S.**, Zamalao, M.C., Johnson, K.R., Cuneo, N.R., Early Eocene $^{40}\text{Ar}/^{39}\text{Ar}$ age for the Pampa de Jones plant, frog, and insect biota (Huitrera Formation, Neuquén Province, Patagonia, Argentina). *Ameghiniana (Paleontological Association of Argentina Reviews)*, v. 47(2), p. 207-216.
- [106] Karátson, D., Telbisz, T., **Singer, B.S.** (2010) Late-stage volcano-geomorphic evolution of the Pleistocene San Francisco Mountain, Arizona (USA), based on high-resolution DEM analysis and $^{40}\text{Ar}/^{39}\text{Ar}$ chronology. *Bulletin of Volcanology*, DOI: 10.1007/s00445-010-0365-8.
- [105] Smith, M.E., Chamberlain, K.R., **Singer, B.S.**, Carroll, A.E. (2010) Eocene clocks agree: Coeval $^{40}\text{Ar}/^{39}\text{Ar}$, U-Pb and astronomical clocks from the Green River Formation. *Geology*, v. 38, p. 527-530.
- [104] Escobar-Wolf, R.P., Diehl, J.F., **Singer, B.S.**, Rose, W.I. (2010) $^{40}\text{Ar}/^{39}\text{Ar}$ and paleomagnetic constraints on the evolution of Volcán de Santa María, Guatemala. *Geological Society of America Bulletin.*, v. 122, p. 757-771.
- [103] J.C. Carracedo, **B. Singer**, B. Jicha, F.J. Pérez Torrado, H. Guillou, E.R. Badiola, R.Paris. (2010) Pre-Holocene age of Humboldt=s 1430 eruption of the Orotava Valley, Tenerife, Canary Islands. *Geology Today*, v. 26, no. 3, p. 101-104.
- [102] Bindeman, I.N., Leonov V.L., Izbekov P.E., Ponomareva V.V., Watts K.E., Shipley N.K., Perepelov A.B., Bazanova L.I., Jicha B.R., **Singer B.S.**, Schmitt A.K., Portnyagin M.V., Chen C.H. (2010) Large-volume silicic volcanism in Kamchatka: Ar-Ar, U-Pb ages and geochemical characteristics of major pre-Holocene caldera-forming eruptions. *Journal of Volcanology and Geothermal Research*, v. 189, p. 57-80.

2009

- [101] Brown, M.C., **Singer, B.S.**, Knudsen, M.F., Jicha, B.R., Finnes, E., Feinberg, J.M. (2009) No Evidence for Brunhes age Excursions, Santo Antão, Cape Verde. *Earth and Planetary Science Letters*, v. 287, p. 100-115.
- [100] Goss, A.R., Kay, S.M., Mpodozis, C., **Singer, B.S.** (2009) The Incapillo Caldera and Dome Complex (~ 281 S, Central Andes): A stranded magma chamber over a dying Andean Arc. *Journal of Volcanology and Geothermal Research*, v. 184, p. 389-404.
- [99] Renne, P.R., Deino, A.L., Hames, W.E., Heizler, M.T., Hemming, S.R., Hodges, K.V., Koppers, A.A.P., Mark, D.F., Morgan, L.E., Phillips, D., **Singer, B.S.**, Turrin, B.D., Villa, I.M., Villeneuve, M., Wijbrans, J.R. (2009) Data reporting norms for $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology. *Quaternary Geochronology* v. 4, p. 346-352.
- [98] **Singer, B.S.**, Guillou, H., Jicha, B.R., Laj, C., Kissel, C., Beard, B.L., Johnson, C.M. (2009) $^{40}\text{Ar}/^{39}\text{Ar}$, K-Ar and ^{230}Th - ^{238}U dating of the Laschamp excursion: A radioisotopic tie-point for ice core and climate chronologies. *Earth and Planetary Science Letters* v. 286, p. 80-88.
- [97] Hora, J.M., **Singer, B.S.**, Worner, G., Beard, B.L., Jicha, B.R., Johnson, C.L. (2009) Shallow and deep control on differentiation of calc-alkaline and tholeiitic magma. *Earth and Planetary Science Letters* v. 285, p. 75-86.
- [96] Laabs, B.J.C., Refsnider, K.A., Munroe, J.S., Mickelson, D.M., Applegate, P.J., **Singer, B.S.**, Caffee, M.W., Latest Pleistocene glacial chronology of the Uinta Mountains: Support for moisture-driven asynchrony of the last deglaciation. *Quaternary Science Reviews*, v. 28, p. 1171-1187.
- [95] Jicha, B.R., Johnson, C.M., Hildreth, W., Beard, B.L., Hart, G.L., Shirey, S.B., **Singer, B.S.** (2009) Discriminating assimilants and decoupling deep- vs. shallow-level crystal records at Mount Adams using ^{238}U - ^{230}Th disequilibria and Os isotopes. *Earth and Planetary Science Letters*, v. 277, p. 38-49.

2008

- [94] Sruoga, P., Rubinstein, N.A., Etcheverría, M.P., Cegarra, M., Kay, S.M., **Singer, B.**, Lee J. (2008) Estadio inicial del arco volcánico Neógeno en la cordillera principal de Mendoza (35 oS). *Revista de la Asociación Geológica Argentina*, v. 63, p. 454-469.
- [93] Hoffman, K.A., **Singer, B.S.** (2008) Magnetic source separation in Earth's outer core. *Science*, v. 321, p. 1800.
- [92] Ackert, R.A. Jr., Becker, R.A., **Singer, B.S.**, Kurz, M.D., Mickelson, D.M., Caffee M.W. (2008) Patagonian glacier response during the late glacial-Holocene transition. *Science*, v. 321, p. 392-395.
- [91] **Singer, B.S.**, Hoffman, K.A., Schnepf, E., Guillou, H. (2008) Multiple Brunhes Chron Excursions in the West Eifel Volcanic Field: Support for long-held mantle control on the non-axial dipole field. *Physics of the Earth and Planetary Interiors*, v. 169, p. 28-40.
- [90] Hoffman, K.A., **Singer, B.S.**, Camps, P., Hansen, L.N., Johnson, K., Clipperton, S., and Carvallo, C. (2008) Stability of mantle control over dynamo flux since the mid-Cenozoic. *Physics of the Earth and Planetary Interiors*, v. 169, p. 20-27.
- [89] Medaris L.G., Dott R.H., **Singer B.S.**, Van Schmus, W.R., Holm, D.K. (2008) Reply to N. Van Wyck's Comment on "Two Paleoproterozoic (Statherian) siliciclastic metasedimentary sequences in central Wisconsin: The end of the Penokean Orogeny and cratonic stabilization of the southern Lake Superior region" [Precamb. Res. 157 (2007) 188-202]. *Precambrian Research*, v. 164, p. 236-238.
- [88] Giorgis, S., McClelland, W., Fayon, A., **Singer, B.**, and Tikoff, B. (2008) Timing of deformation and exhumation in the western Idaho shear zone, McCall, Idaho. *Geological Society of America Bulletin*, v. 120, p. 1119-1133.
- [87] Blondes, M.S., Reiners, P.W., Ducea, M.N., **Singer, B.S.**, Chesley, J. (2008) Temporal-compositional trends over short and long time-scales in basalts of the Big Pine Volcanic Field, CA. *Earth and Planetary Science Letters*, v. 269, p. 140-154.
- [86] Oskin, M., Perg, L., Shelef, E., Strane, M., Gurney, E., **Singer, B.**, Zhang, X. (2008) Elevated shear-zone loading rate during an earthquake cluster in eastern California. *Geology*, v. 36, p. 507-510.
- [85] Smith, M.E., **Singer, B.S.**, Carroll, A.R., Fournelle, J.H. (2008) Precise dating of biotite in distal volcanic ash: Isolating subtle alteration using $^{40}\text{Ar}/^{39}\text{Ar}$ laser incremental heating and electron microprobe techniques. *American Mineralogist*, v. 93, p. 784-795.
- [84] Johnson, C.L., Constable, C.G., Tauxe, L., Barendregt, R., Brown, L.L., Coe, R.S., Layer, P., Mejia, V., Opdyke, N.D., **Singer, B.S.**, Staudigel, H., and Stone, D.B. (2008) Recent investigations of the 0-5 Ma geomagnetic field recorded by lava flows. *Geochemistry, Geophysics, Geosystems*, v. 9, Q04032, doi: 10.1029/2007GC001696.
- [83] **Singer, B.S.**, Jicha, B.R., Naranjo, J.A., Lara, L.E., Moreno-Roa, H., and Harper, M.A. (2008) Eruptive history, geochronology, and magmatic evolution of the Puyehue-Cordon Caulle volcanic complex, Chile. *Geological Society of America Bulletin*, v. 120, p. 599-618.
- [82] Cassata, W.S., **Singer, B.S.**, Cassidy, J. (2008) Laschamp and Mono Lake geomagnetic excursions recorded in New Zealand. *Earth and Planetary Science Letters*, v. 268, p. 76-88. doi:10.1016/j.epsl.2008.01.009.
- [81] **Singer, B.S.**, Jicha, B.R., Kirby, B.T., Geissman, J.W, Herrero-Bervera, E. (2008) $^{40}\text{Ar}/^{39}\text{Ar}$ dating links Albuquerque Volcanoes to the Pringle Falls excursion and the Geomagnetic Instability Time Scale. *Earth and Planetary Science Letters*, v. 267, p. 584-595. doi:10.1016/j.epsl.2007.12.009.

- [80] Refsnider, K.A., B.J.C. Laabs, M.A. Plummer, D.M. Mickelson, **B.S. Singer**, M.W. Caffee (2008) Last glacial maximum climate inferences from cosmogenic nuclide dating and glacier modeling of the western Uintah ice field, Uinta Mountains, Utah. *Quaternary Research*, v. 69, p. 130-144.
- [79] Smith, M.E., Carroll, A.R., and **Singer, B.S.**, (2008) Synoptic reconstruction of a major ancient lake system: Eocene Green River Formation, Western United States, *Geological Society of America Bulletin*, v. 120, p. 54-84, doi: 10.1130/B26073.1.

2007

- [78] Thouret, J.-C., G. Wörner, Y. Gunnell, **B. Singer**, X. Zhang, T. Souriot (2007) Geochronologic and stratigraphic constraints on canyon incision and Miocene uplift of the Central Andes in Peru, *Earth and Planetary Science Letters*, v. 263, p. 151-166, doi:10.1016/j.epsl.2007.07.023..
- [77] Laabs, B.J.C., Munroe, J.S., Rosenbaum, J.G., Refsnider, K.A., Mickelson, D.M., **Singer, B.S.**, and Caffee, M.W. (2007) Latest Pleistocene Glaciation of the Upper Bear River Basin, Utah. *Arctic, Antarctic, and Alpine Research*. v. 39, p. 537-548.
- [76] *B.R. Jordan, H. Sigurdsson, S. Carey, S. Lundin, R. Rogers, **B. Singer**, M. Barquero-Molina (2007) Petrogenesis of Central American Tertiary ignimbrites and associated Caribbean Sea tephra. in: Paul Mann (ed.), *Geological Society of America Special Paper 428: Geologic and Tectonic Development of the Caribbean Plate in Northern Central America*, GSA, Boulder CO, p. 151-179.
- [75] Iglesias, A., Wilf, P., Johnson, K.R., Zamuner, A.B., Cuneo, N.R., Matheos, S.D., and **Singer, B.S.** (2007) A Paleocene lowland macroflora from Patagonia reveals significantly greater richness than North American analogs. *Geology*, v.35, p. 947-950, doi:10.1130/G23889A.1.
- [74] **Singer, B.S.**, Jicha, B.R., Rogers, N.W., Leeman, W.P., Thirlwall, M.F., and Ryan, J. (2007) Along strike trace element and isotopic variation in Aleutian Island arc basalt: Subduction melts sediments and dehydrates serpentine. *Journal of Geophysical Research*, v. 112, B06206, doi:10.1029/2006JB004897 (26 pages).
- [73] Craddock, J.P., Anziano, J, Wirth, K., Vervoort, J.D., **Singer, B.**, and Zhang, X. (2007) Structure, geochemistry and geochronology of a Penokean Lamprophyre Dike Swarm, Archean Wawa Terrane, Little Presque Isle, Michigan, USA. *Precambrian Research*, v. 157, p. 50-70.
- [72] Medaris, L.G. Jr., Van Schmus W.R., Loofboroc, J., Zhang, X., Holm, D.K., **Singer, B.S.**, and Dott, R.H. Jr. (2007) Two Paleoproterozoic (Statherian) Siliciclastic Metasedimentary Sequences in Central Wisconsin: The End of the Penokean Orogeny and Cratonic Stabilization of the Southern Lake Superior Region. *Precambrian Research*, v. 157, p. 188-202.
- [71] ***Singer, B.S.** (2007) Polarity Transitions: Radioisotopic Dating. In: Gubbins, D., and Herrero-Bervera, E., eds. *Encyclopedia of Geomagnetism and Paleomagnetism*. Springer, pp. 834-839.
- [70] Hora, J.M., **Singer, B.S.**, and Worner, G. (2007) Eruptive flux through thick crust of the Andean central volcanic zone: $^{40}\text{Ar}/^{39}\text{Ar}$ constraints from Volcán Parí, Chile. *Geological Society of America Bulletin*, v. 119, p. 343-362. doi: 10.1130/B25954.1.
- [69] Jicha, B.R., **Singer, B.S.**, Beard, B.L., Johnson, C.L., Moreno-Roa, H., and Naranjo, J.A. (2007) Rapid magma ascent and generation of ^{230}Th excesses in the lower crust at Puyehue-Cordón Caulle, Southern Volcanic Zone, Chile. *Earth and Planetary Science Letters*, v. 255, p. 249-242. doi:10.1016/j.epsl.2006.12.017.
- [68] Herrero-Bervera E., Browne, E., Valet, J.P., **Singer, B.S.**, and Jicha, B.R. (2007) Cryptochron C2r.2r-1 Recorded 2.51 Ma in the Koolau Volcano at Halawa, Oahu, Hawaii, USA: Paleomagnetic and $^{40}\text{Ar}/^{39}\text{Ar}$ evidence. *Earth and Planetary Science Letters*, v. 254, p. 256-271. doi:10.1016/j.epsl.2006.11.023

2006

- [67] Moritz, R.P., Gazhban, F, and **Singer, B.S.** (2006) Eocene gold ore formation at Muteh, Sanandaj-Sirjan Tectonic Zone, Western Iran: A result of late stage extension and exhumation of metamorphic basement rocks within the Zagros orogen. *Economic Geology*, v. 101, p. 1497-1524.
- [66] Bonev, N., Marchev, P., and **Singer B.** (2006) $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology constraints on the Middle Tertiary basement extensional exhumation and its relation to ore-forming and magmatic processes in the Eastern Rhodope (Bulgaria). *Geodinamica Acta*, v. 19, p. 265-280.
- [65] Munroe, J.S., Laabs, B.J.C., Shakun, J.D., **Singer, B. S.**, Mickelson, D.M., Refsnider, K.A., and Caffee, M.W. (2006) Latest Pleistocene advance of alpine glaciers in the southwestern Uinta Mountains, Utah, USA: Evidence for the influence of local moisture sources. *Geology*, v. 34, p. 841-844.
- [64] Douglass, D.C., **Singer, B.S.**, Kaplan, M.R., Mickelson, D.M., and Caffee, M.W. Cosmogenic surface-exposure dating of boulders on last-glacial and late-glacial moraines, Lago Buenos Aires, Argentina: Interpretive strategies and paleoclimate implications. *Quaternary Geochronology*, v. 1, p. 43-58.
- [63] R.Secord, P.D. Gingerich, M. E. Smith, W.C. Clyde, P. Wilf, and **B.S. Singer** (2006) Geochronology and Mammalian Biostratigraphy of Middle and Upper Paleocene Continental Strata, Bighorn Basin, Wyoming. *American Journal of Science*, v. 306, p. 211-245.
- [62] Jicha, B.R., Scholl, D.W., **Singer, B.S.**, Yogodzinski, G.M., and Kay, S.M., Revised age of Aleutian Island arc formation implies high rate of magma production. *Geology*, v. 34, p. 661-664.
- [61] Smith, M.E., **Singer, B.S.**, Carroll, A.R. (2006) High-resolution calibration of Eocene strata: $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology of biotite in the Green River Formation. *Geology*, v. 34, p. 393-396.
- [60] Jicha, B.R., and **Singer, B.S.** (2006) Volcanic and magmatic evolution of Seguam Island, Aleutian Island Arc, Alaska. *Geological Society of America Bulletin*, v. 118, p. 805-822. doi: 10.1130/B25861.1

2005

- [59] Brown, E.H., Lapen, T.J., Leckie, R.M., Premoli Silva, I., and **Singer, B.S.** (2005) Revised ages of blueschist metamorphism and the youngest pre-thrusting rocks in the San Juan Islands, Washington. *Canadian Journal of Earth Sciences*, v. 42, p. 1389-1400.
- [58] Chetel, L.M., Simo, J.A. and **Singer, B.S.** (2005) $^{40}\text{Ar}/^{39}\text{Ar}$ Geochronology and provenance of detrital K-feldspars, Ordovician, Upper Mississippi Valley. *Sedimentary Geology*. v. 182, p. 163-181. doi:10.1016/j.sedgeo.2005.07.010
- [57] Jicha, B.R., **Singer, B.S.**, Beard, B.L., and Johnson, C.L. (2005) Contrasting timescales of crystallization and magma storage beneath the Aleutian Island arc. *Earth and Planetary Science Letters*, v. 236, p. 195-210. doi:10.1016/j.epsl.2005.05.002
- [56] Wilf, P., Johnson, K.R., Cuneo, R.N., Smith, M.E., **Singer, B.S.**, and Gandolfo, M.A. (2005) Eocene plant diversity at Laguna del Hunco and Rio Pichileufu, Patagonia, Argentina. *The American Naturalist*, v. 165, No. 6, p. 634-650.
- [55] **Singer, B.S.**, Hoffman, K.A., Coe, R.S., Brown, L.L., Jicha, B.R., Pringle M.S., and Chauvin, A. (2005) Structural and temporal requirements for geomagnetic field reversal deduced from lava flows. *Nature*, v. 434, p. 633-636. doi:10.1038/nature03431
- [54] Kaplan, M.R., Douglass, D.C., **Singer, B.S.**, Ackert, R.P., and Caffee, M.W. (2005) Cosmogenic nuclide chronology of pre-last glaciation maximum moraines at Lago Buenos Aires, 46°S, Argentina. *Quaternary Research*, v. 63, p. 301-315.

- [53] Douglass, D.C., Singer, B.S., Kaplan, M.R., Ackert, R.P., Mickelson, D.M., and Caffee, M.W. (2005) Evidence of Early Holocene Glacial Advances in Southern South America from Cosmogenic Surface Exposure Dating. *Geology*, v. 33, p. 237-240.

2004

- [52] Marchev, P., **Singer B.S.**, Jeleu, D., Hasson, S., Moritz, R., Bonev, N. (2004) The Ada Tepe deposit: a sediment-hosted, detachment fault-controlled, low-sulfidation gold deposit in the Eastern Rhodopes, SE Bulgaria. *Schweizerische Mineralogische und Petrographische Mitteilungen (Swiss Bulletin of Mineralogy and Petrology)*, v. 84, p. 59-78.
- [51] Rogers, R.R., Rogers, K.C., Munyikwa, D., Terry, R.C., and **Singer, B.S.** (2004) New insights into Karoo-equivalent rocks in the Limpopo Valley of Zimbabwe, with observations on the preservation of early dinosaurs. *Journal of African Earth Sciences*, v. 40, p. 147-161.
- [50] Brown, L.L., **Singer, B.S.**, Pickens, J.P.C., and Jicha, B.R., (2004) Paleomagnetic directions and $^{40}\text{Ar}/^{39}\text{Ar}$ ages from the Tatara-San Pedro volcanic complex, Chilean Andes: Lava record of a Matuyama- Brunhes precursor? *Journal of Geophysical Research*. v. 109 B12101, doi:10.1029/2004JB003007. 17 pp.
- [49] Guillou, H., **Singer, B.S.**, Laj, C., Kissell, C., Scalliet, S., and Jicha, B.R. (2004), On the age of the Laschamp Event. *Earth and Planetary Science Letters*, v. 227, p. 331-343.
- [48] ***Singer, B.S.**, Brown, L.L., Rabassa, J.O., and Guillou, H. (2004) $^{40}\text{Ar}/^{39}\text{Ar}$ chronology of Late Pliocene and early Pleistocene geomagnetic and glacial events in southern Argentina. in: Channell, J.E.T., Kent, D.V., Lowrie, W., and Meert J., eds. *Timescales of the Paleomagnetic Field, American Geophysical Union, Geophysical Monograph*, v. 145, p. 175-190.
- [47] *Hoffman, K.A., and **Singer, B.S.** (2004) Regionally recurrent paleomagnetic transitional fields and mantle processes. in: Channell, J.E.T., Kent, D.V., Lowrie, W., and Meert J., eds. *Timescales of the Paleomagnetic Field, American Geophysical Union, Geophysical Monograph*. v. 145, p. 233-243.
- [46] Jicha, B.R., **Singer, B.S.**, Brophy, J.G., Fournelle, J.H., Johnson, C.M., Beard, B.L., Lapen, T.J., and Mahlen, N.J. (2004) Variable Impact of the Subducted Slab on Aleutian Island Arc Magma Sources: Evidence from Sr, Nd, Pb, and Hf Isotopes and Trace Element Abundances, *Journal of Petrology*, v. 45, p. 1845-1875.
- [45] Ghinassi, M., Magi, M., Sagri, M., and **Singer, B.S.** (2004) Arid climate 2.5 Ma in the Plio-Pleistocene Valdarno Basin (Northern Apennines, Italy). *Palaeogeography, Palaeoclimatology, Palaeoecology*. v. 207, p. 37-57.
- [44] Coe, R.S., **Singer, B.S.**, Pringle, M.S., and Zhao, X. (2004) Matuyama-Brunhes reversal and Kamikatsura Event on Maui: Paleomagnetic directions, $^{40}\text{Ar}/^{39}\text{Ar}$ ages and implications. *Earth and Planetary Science Letters*, v. 222, p. 667-684.
- [43] Pastre, J.-F., **Singer, B.S.**, Guillou H., Pupin, J.-P., and Riou, B. (2004) Chronostratigraphy of the key Upper Miocene (Lower Turolian) sequence of la Montagne d'Andance (Ardèche, France). Implications of new $^{40}\text{Ar}/^{39}\text{Ar}$ laser fusion and unspiked K-Ar dating of trachytic tephra and basalts. *Bulletin de la Société géologique de France*, vol 175, no. 1, pp. 3-10. (English with French abstract)
- [42] Mejia, V., Opdyke, N.D., Vilas, J.F., **Singer, B.S.**, and Stoner, J.S. (2004) Plio-Pleistocene time averaged field in southern Patagonia recorded in lava flows. *Geochemistry, Geophysics, and Geosystems*, v. 5, no. 3, doi:10.1029/2003GC000633.
- [41] Kaplan, M.R., Ackert, R.P. Jr., Singer, B.S., Douglass, D.C., Kurz, M.D. (2004) Cosmogenic nuclide chronology of millennial-scale glacial advances during O-isotope stage 2 in Patagonia. *Geological Society of America Bulletin*, vol. 116, p. 308-321.

- [40] **Singer, B.S.**, Ackert, R.P. Jr., and Guillou, H. (2004) $^{40}\text{Ar}/^{39}\text{Ar}$ and K-Ar chronology of Pleistocene glaciations in Patagonia. *Geological Society of America Bulletin*, v. 116, p. 434-450.
- [39] **Smith, M.E.**, **Singer, B.S.**, and Carroll, A.R. (2004) Reply to comment on: $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology of the Green River Formation, Wyoming, by Clyde, W.C., Bartels, W.S., Gunnell, G.F., and Zonneveld, J.-P., *Geological Society of America Bulletin*, v. 116, p. 253-256.
- [38] Brown, L.L., **Singer, B.S.**, and Goring, M. (2004) Paleosecular variation in the Southern Hemisphere: Paleomagnetic and geochronologic results from Meseta del Lago Buenos Aires, Patagonia, Argentina. *Geochemistry, Geophysics, and Geosystems*. vol. 5, 21 January 2004, doi:10.1029/2003GC000526, 21 pp.

2003

- [37] Carracedo, J.C., **Singer, B.S.**, **Jicha, B.**, Guillou, H., Rodriguez Badiola, E., Meco, J., Perez Torado, F.J., Gimeno, D., Socorro, S. and Lainez, A. (2003) La erupcion y el tubo volcanico del Volcan Corona (Lanzarote, Islas Canarias. *Estudios Geologicos del Museo Nacional de Ciencias Naturales, Madrid, Espana*, v. 59, p. 277-302.
- [36] **Pietras, J.T.**, Carroll, A.R., **Singer, B.S.**, and **Smith, M.E.**, (2003) 10 k.y. depositional cyclicity in the early Eocene: Stratigraphic and $^{40}\text{Ar}/^{39}\text{Ar}$ evidence from the Lacustrine Green River Formation. *Geology*. v. 31, p. 593-596.
- [35] Ackert, R.P. Jr., **Singer, B.S.**, Kurz, M. D. H. Guillou, and **Kaplan, M.R.** (2003) Calibration of ^3He production rates against $^{40}\text{Ar}/^{39}\text{Ar}$ and K-Ar dated Patagonia lava flows, 46° S, *Earth and Planetary Science Letters*, v. 210, p. 119-136.
- [34] **Smith, M.E.**, **Singer, B.S.**, and Carroll, A.R. (2003) $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology of the Green River Formation, Wyoming. *Geological Society of America Bulletin*, v. 115, p. 549-565.
- [33] Medaris, L.G., **Singer, B.S.**, Dott, R.H., **Naymark, A.**, Johnson, C.M., and Schott, R.C. (2003) Late Paleoproterozoic climate, tectonics and metamorphism in the southern Lake Superior region and Proto-North America: Evidence from Baraboo interval quartzites. *Journal of Geology*, v. 111, p. 243-257.
- [32] Goring, M., **Singer, B.**, Gowers, J., and Kay, S.M. (2003) Plio-Pleistocene basalts from the Meseta del Lago Buenos Aires, Argentina: Evidence for asthenosphere-lithosphere interactions during slab-window magmatism. *Chemical Geology*, v. 193, p. 215-235.
- [31] Davidson, C.M., Davis, K.J., Bailey, C.M., Tape, C.H., Singleton, J., and **Singer, B.** (2003) The age, origin, and significance of pseudotachylite along the Coast shear zone, Prince Rupert, British Columbia. *Geology*, v. 31, p. 43-46.

2002

- [30] **Marchev, P.**, and **Singer, B.** (2002) $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology of magmatism and hydrothermal activity of the Madjarovo base-precious ore district, Eastern Rhodopes, Bulgaria. in: Blundell, D.J., Neubauer, F., and Von Quadt, eds.: *The Timing and Location of Major ore deposits in an Evolving Orogen*, *Geological Society of London, Special Publications*, v. 204, p. 137-150.
- [29] **Singer, B.S.**, **Relle, M.R.**, Hoffman, K.A., Battle, A., Guillou, H., Laj, C., Carracedo, J.C. (2002) Ar/Ar ages of transitionally magnetized lavas on La Palma, Canary Islands, and the Geomagnetic Instability Timescale. *Journal of Geophysical Research*, v. 107 (B11), 2307, doi:10.1029/2001JB001613.
- [28] Costa, F., and **Singer, B.** (2002) Evolution of Holocene dacite and compositionally zoned magma, Volcán San Pedro, Southern Volcanic Zone, Chile. *Journal of Petrology*, v. 43, p. 1571-1593.

- [27] **Singer, B.**, and Brown, L.L. (2002) The Santa Rosa Event: $^{40}\text{Ar}/^{39}\text{Ar}$ and paleomagnetic results from the Valles Rhyolite near Jaramillo Creek, Jemez Mountains, New Mexico. *Earth and Planetary Science Letters*, v. 197, p. 51-65.
- [26] Costa, F., Dungan, M.A., and **Singer, B.S.** (2002) Hornblende and phlogopite-bearing gabbroic crustal xenoliths from Volcan San Pedro (36° S), Chilean Andes: Evidence for melt and fluid migration and reactions in subduction-related plutons. *Journal of Petrology*, v. 43, p. 219-241.

2001

- [25] Ton-That, T., **Singer, B.**, and Paterne, M. (2001) $^{40}\text{Ar}/^{39}\text{Ar}$ dating of latest Pleistocene (41 ka) marine tephra in the Mediterranean Sea: Implications for global climate records. *Earth and Planetary Science Letters*, v. 184, p. 645-658.
- [24] Costa, F., Dungan, M.A., and **Singer, B.S.** (2001) Magmatic sodium-rich phlogopite in a suite of gabbroic crustal xenoliths from Volcan San Pedro (36° S, Chilean Andes): Evidence for a solvus relation between sodium phlogopite and phlogopite. *American Mineralogist*, v. 86, p. 29-35.

2000

- [23] **Singer, B.**, Hildreth, W., and Vincze, Y. (2000) $^{40}\text{Ar}/^{39}\text{Ar}$ evidence for early deglaciation of the central Chilean Andes. *Geophysical Research Letters*, v. 27, p. 1663-1666.
- [22] **Singer, B.**, and Marchev, P. (2000) Temporal evolution of arc magmatism and hydrothermal activity, including epithermal gold veins, at Borovitsa caldera, southern Bulgaria. *Economic Geology*, v. 95, p. 1155-1164.
- [21] Thirlwall, M.F., **Singer, B.S.**, and Marriner, G.F. (2000) ^{39}Ar - ^{40}Ar ages and geochemistry of the basaltic shield stage of Tenerife, Canary Islands, Spain. *Journal of Volcanology and Geothermal Research*, 103, p. 247-297.

1999

- [20] **Singer, B.S.**, Hoffman, K.A., Chauvin, A., Coe, R.S., and Pringle, M.S. (1999) Dating transitionally magnetized lavas of the late Matuyama Chron: Toward a new $^{40}\text{Ar}/^{39}\text{Ar}$ timescale of reversals and events. *Journal of Geophysical Research*, v. 104, p. 679-693.
- [19] Ton-That, T., **Singer, B.S.**, Mörner, N.A., and Rabassa, J. (1999) Datación por el método $^{40}\text{Ar}/^{39}\text{Ar}$ de lavas basálticas y geología del Cenozoico superior en la región del Lago Buenos Aires, provincia de Santa Cruz, Argentina, *Revista de la Asociación Geológica Argentina*, v. 54, p. 333-352.
- [18] Hildreth, W., Fierstein, J., Godoy, E., Drake, R.E., and **Singer, B.** (1999) The Puelche Volcanic Field: extensive Pleistocene rhyolite lava flows in the Andes of central Chile. *Revista Geológica de Chile*, v. 26, p. 275-309.

1998 and earlier

- [17] **Singer, B.S.**, Wijbrans, J., Nelson, S.T., Pringle, M.S., Feeley, T.C., Dungan, M.A. (1998) Inherited argon in a Pleistocene andesite lava: $^{40}\text{Ar}/^{39}\text{Ar}$ incremental-heating and laser fusion analyses of plagioclase. *Geology*, v. 26, p. 427-430.
- [16] Hildreth, W., **Singer, B.S.**, Godoy, E., and Munizaga, F. (1998) The age and constitution of Cerro Campanario, a mafic stratovolcano in the Andes of central Chile. *Revista Geológica de Chile*, 25, p. 17-28.
- [15] **Singer B.S.**, and nine others (1997) Volcanism and erosion during the past 930 thousand years at the Tatará-San Pedro complex, Chilean Andes. *Geological Society of America Bulletin*. v. 109, p. 127-142.

- [14] Marschik, R., **Singer, B.S.**, Munizaga, F., Tassinari, C., Moritz, R., and Fontboté, L., (1997) Age of Cu(-Fe) mineralization and thermal evolution of the Punta del Cobre District, Chile. *Mineralium Deposita*. v. 32, p. 531-546.
- [13] **Singer, B.S.**, and Pringle, M.S. (1996) Age and duration of the Matuyama-Brunhes geomagnetic polarity transition from $^{40}\text{Ar}/^{39}\text{Ar}$ incremental heating analyses of lavas. *Earth & Planetary Science Letters*, 139, 47-61.
- [12] ***Singer, B.S.**, Leeman, W., Thirlwall, M., and Rogers, N. (1996) Does Fracture zone subduction increase sediment flux and mantle melting in subduction zones? Trace element evidence from Aleutian arc basalt. in: G. Bebout, S. Kirby, D. Scholl, and J. Platt, editors: *Subduction from Top to Bottom*. *American Geophysical Union Monograph no. 96*, American Geophysical Union, Washington D.C., p. 285-291.
- [11] Brophy, J.G., Dorais, M.J., Donnelly-Nolan, J., and **Singer, B.S.** (1996) A textural and compositional (ion-probe and electron probe) study of plagioclase zonation styles in hornblende gabbro cumulates from Little Glass Mountain, Medicine Lake volcano, California: Implications for fractional crystallization mechanisms in calc-alkaline magma genesis. *Contributions to Mineralogy and Petrology*, v. 126, p. 121-136.
- [10] **Singer, B.S.**, Dungan, M.A., and Layne, G.D. (1995) Textures and Sr, Ba, Mg, Fe, K, and Ti compositional profiles in volcanic plagioclase: Clues to the dynamics of calc-alkaline magma chambers. *American Mineralogist*, v. 80, pp. 776-798.
- [9] Brown, L.L., Pickens, J.R., **Singer, B.S.** (1994) Matuyama-Brunhes transition recorded in lava flows of the Chilean Andes: Evidence for dipolar fields during reversals. *Geology*, v. 22, pp. 299-302.
- [8] **Singer, B.S.**, Pearce, T.H., Kolisnik, A.K., and Myers, J.D. (1993) Plagioclase zoning in mid-Pleistocene lavas from the Seguan volcanic center, central Aleutian arc, Alaska. *American Mineralogist*, v. 78, 143-157.
- [7] **Singer, B.S.**, and Pearce, T.H. (1993) Plagioclase zonation in a basalt to rhyodacite eruptive suite, Seguan Island, Alaska: Nomarski contrast interference observations. *Canadian Mineralogist*, v. 31, pp. 459-466.
- [6] **Singer, B.S.**, O'Neil, J.R., and Brophy, J.G. (1992) Oxygen isotope constraints on the petrogenesis of Aleutian arc magmas. *Geology*, v. 20, pp. 367-370.
- [5] **Singer, B.S.**, Myers, J.D., and Frost, C.D. (1992) Mid-Pleistocene basalt from the Seguan Island volcanic center, central Aleutian arc, Alaska: local lithospheric structures and source variability in the Aleutian arc. *Journal of Geophysical Research*. v. 97, pp. 4561-4578.
- [4] **Singer, B.S.**, Myers J.D., and Frost C.D. (1992) Mid-Pleistocene lavas from the Seguan Island volcanic center, central Aleutian arc: closed-system fractional crystallization of a basalt to rhyodacite eruptive suite. *Contributions to Mineralogy and Petrology*. v. 110, pp. 87-112.
- [3] **Singer, B.S.** and Myers, J.D. (1990) Intra-arc extension and magmatic evolution in the central Aleutian arc, Alaska. *Geology*, v. 18, pp. 1050-1053.
- [2] **Singer, B.S.**, Myers, J.D., Linneman, S.R. and Angevine, C.L. (1989) The thermal history of ascending magma diapirs and the thermal and physical evolution of magmatic conduits. *Journal of Volcanology and Geothermal Research*, v. 37, pp. 273-289.
- [1] **Singer, B.S.**, and Kudo, A.M. (1986) Assimilation-fractional crystallization of Polvadera Group rocks in the northwestern Jemez Volcanic Field, New Mexico. *Contributions to Mineralogy and Petrology*, v. 94, 374-386.

BOOK REVIEWS

- [2] **Singer, B.S.** (1995) Review of: *Magma Transport and Storage*, edited by M.P. Ryan, Wiley and Sons, New York, 420 pp., *American Mineralogist*, v. 80, p. 636-637.

- [1] **Singer, B.S.** (1992) Review of: Andean Magmatism and its Tectonic Setting, edited by R.S. Harmon and C.W. Rapela, 309 pp., *Science*, v. 257, pp. 983-984.

ABSTRACTS

From 1985 to 2019: authored or co-authored >432 abstracts presented at national or international meetings, including several invited presentations beginning in 1992.