

Curriculum vitae

Dr. Bärbel Hönisch

Department of Earth and Environmental Sciences
Columbia University

Lamont-Doherty Earth Observatory
of Columbia University
Comer Geochemistry Building, #229
61 Rt. 9W
Palisades, NY 10964-8000

e-mail: hoenisch@ldeo.columbia.edu
phone: 1-845-365-8828
fax: 1-845-365-8155
<http://www.ldeo.columbia.edu/~hoenisch>

EDUCATION AND PROFESSIONAL EXPERIENCE

- 2019-present Tenured Full Professor, Dept. of Earth & Environmental Sciences, Columbia University, NY
- 2014-2019 Tenured Associate Professor, Dept. of Earth & Environmental Sciences, Columbia University, NY
- 2013-2014 Associate Professor, Dept. of Earth & Environmental Sciences, Columbia University, NY
- 2007-2013 Assistant Professor, Dept. of Earth & Environmental Sciences, Columbia University, NY
- 2005-2006 Research Scientist at the Center for Marine Environmental Studies (Marum), Bremen University; Adjunct Associate Research Scientist at the Lamont-Doherty Earth Observatory, Palisades, NY, and Visiting Scientist at SUNY Stony Brook, Stony Brook, NY.
- 2003-2005 Associate Research Scientist at the School of Earth and Environmental Sciences, Queens College, Flushing, NY; Adjunct Associate Research Scientist at the Lamont-Doherty Earth Observatory, Palisades, NY, and Visiting Scientist at SUNY Stony Brook, Stony Brook, NY.
- 2002-2003 Postdoctoral Research Scientist at the Lamont-Doherty Earth Observatory, Palisades, NY, and Visiting Scientist at SUNY Stony Brook, Stony Brook, NY.
- 2002 Dr. rer. nat. (Ph.D. in Natural Sciences). Thesis title: Stable isotope and trace element composition of foraminiferal calcite - from incorporation to dissolution, Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany. Advisors: Dr. J. Bijma, Prof. D.A. Wolf-Gladrow.
- 1999 Diplom (masters) in Marine Biology (secondary subjects: Geology, Ecology). Thesis title: Occurrence and isotopic composition of otoliths from Walvis Ridge sediments, University of Bremen, Germany. Advisors: Prof. V. Smetacek, Prof. G. Wefer.
- 1995 Vordiplom (BA) in Biology, University of Bielefeld, Germany.

AWARDS AND RECOGNITIONS

2018	Willi Dansgaard Award, AGU
2018	Marie Tharp Lecturer, GEOMAR
2016	Lenfest Distinguished Faculty Award
2015	Lehigh University Foster Hewett Speaker
2013	LDEO Best Mentor Award
2012	Women in Science and Engineering (WISE) Distinguished Lecturer, University of Southern California
2011-2012	Ocean Leadership Distinguished Lecturer

TEACHING AND MENTORING ACTIVITIES

Courses taught

- EESC V1003 Climate and Society, annually, Spring 2017, 2018, 2019
- EESC W4926 Chemical Oceanography, Spring 2007, 2009, 2011, 2013
- EESC V1030 Introduction to Oceanography, annually, Fall 2007-2018
- EESC V4920 Paleoceanography, Fall 2009, Spring 2012, Spring 2014, Spring 2016
- EESC G9600 Seminar in Paleoclimatology (Mid-Pleistocene Transition), Spring 2014
- EESC G9802 Seminar in Geochemistry, Spring 2008
- Summer school: Experimental Methods in Culturing Planktic Foraminifers, Catalina Island, CA, July 23-August 3, 2007.

Supervised Students

- Ingrid Izaguirre, graduate student, mentor, Department of Earth and Environmental Sciences, 2019-present.
- Sabrina Lautin, lab assistant, 2018-2019, senior thesis adviser, 2019-present.
- Lloyd Anderson, graduate student, mentor, Department of Earth and Environmental Sciences, 2017-present.
- Vanessa Soldana Fountain, work-study student, 2017
- Daniel Marone, lab assistant, Department of Earth and Environmental Sciences, Columbia University, 2016-2017.
- Hailey Riechelson, senior thesis adviser, Columbia University, 2016-2017
- Carina Fish, Bridge-to-PhD student, 2014-2016
- Mohamed Ezat, visiting graduate student, University of Tromsø, 2013-2017
- Laura Haynes, graduate student, mentor, Department of Earth and Environmental Sciences, 2013-2019.
- Caroline Baptist, Bridge-to-PhD student, 2012-2014
- Kyle Monahan, summer intern, undergraduate student at Rensselaer Polytechnic Institute, July-December 2011.
- Jesse Farmer, graduate student, mentor, Department of Earth and Environmental Sciences, Columbia University, 2011-2016.

- Sarah Hale, Master's student, mentor, Department of Earth and Environmental Sciences, Columbia University, 2009-2010.
- Katherine Allen, graduate student, mentor, Department of Earth and Environmental Sciences, Columbia University, 2007-2012.
- Don Penman, lab assistant, Department of Earth and Environmental Sciences, Columbia University, 2008-2009.
- Diya Chacko, Masters student, thesis advisor, Department of Earth and Environmental Sciences, Earth and Environmental Science Journalism program, Columbia University, 2009.
- Ashley Ellenson, work study student, School of Engineering and Applied Science, Columbia University, 2008-2009.
- Lida Teneva, graduate student, thesis committee, Department of Earth and Environmental Sciences, Columbia University, 2007-2008.
- Lucy Chen, summer assistant, undergraduate student at Columbia University, July-October 2007.
- Steven Wang, FOSTOR intern, Columbia University, June/July 2007.
- Jessica Leber, Masters student, thesis committee, Department of Earth and Environmental Sciences, Earth and Environmental Science Journalism program, Columbia University, 2007.
- Gemma Kirkwood, Masters student, thesis committee, Department of Earth and Environmental Sciences, Columbia University, 2006 – 2007.
- Lucy Liu, Highschool Summer Intern, Lamont-Doherty Earth Observatory, Palisades, NY, June/July 2005.

Postdocs

- Ross Whiteford, Lamont-Doherty Earth Observatory, June 2019-present
- Julia Gottschalk, Lamont-Doherty Earth Observatory, February 2018-present
- Kelsey Dyez, Lamont-Doherty Earth Observatory, August 2014-May 2018
- Iris Möbius, Lamont-Doherty Earth Observatory, March 2015-March 2016
- Martin Ziegler, short-term research visitor, February-July 2010
- Markus Raitzsch, Lamont-Doherty Earth Observatory, March 2009-August 2010
- Gretta Bartoli, short-term research visitor, September-December 2007
- Barbara Balestra, Lamont-Doherty Earth Observatory, June-August 2007

PROFESSIONAL SERVICE

- Proposal reviewer
American Chemical Society Petroleum Research Fund, European Research Council, European Science Foundation, U.S. National Science Foundation (NSF), German-Israeli Foundation for Scientific Research and Development, Swiss National Science Foundation, U.S.-Israel Binational Science Foundation, California Sea Grant College Program, Natural Environment Research Council (NERC), U.S. Science Support Program, Netherlands Organisation for Scientific Research

- Review panel member
NSF P2C2 2013
- Manuscript Reviewer
Applied Geochemistry, Biogeosciences, Chemical Geology, Climate of the Past, Deep-Sea Research, Earth and Planetary Science Letters, Geochimica et Cosmochimica Acta, Geology, G-cubed, Geophysical Research Letters, Journal of Foraminiferal Research, Mass Spectrometry Reviews, Nature, Nature Communications, Nature Geoscience, Nature Scientific Reports, Paleoceanography/Paleoceanography and Paleoclimatology, Quaternary Science Reviews, Science, Science Advances, Trends in Ecology & Evolution
- e-Lecture Reviewer
Limnology and Oceanography, Nature Education, Nature Knowledge, ASLO
- Expert reviewer, Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC), IPCC Sixth Assessment Report (AR6); Working Group I, IPCC Fifth Assessment Report (AR5) Climate Change 2013: The Physical Science Basis
- Member of European Science Foundation College of Experts (2018-present)
- GEOMAR Scientific Advisory Board, 2018 – present
- Helmholtz Evaluation Panel, GEOMAR, October 2017
- Member of AGU Willi Dansgaard Award Committee, 2019
- Member of AGU Nanne Weber Early Career Award Committee, 2018
- External graduate student committee member
Juan Pablo d’Olivo Cordero (ANU, 2012/2013); Tali Babila (Rutgers, 2013)
- Associate Editor: *Paleoceanography*, 2014 - 2016
- Member AGU Scheduling Committee, 2009-2012 and Secretary of the AGU *Paleoceanography/Paleoclimatology* focus group, 2011- 2012.
- Member of the ICP 2016 Organizing committee, 2015-2016.
- SCOR working group 138, “Modern planktic foraminifera and ocean changes”, Associate member, 2/2011-11/2018.
- *Session convener, Organizing Committees*
- *Goldschmidt Conference 2018, Boston: 071 Ocean carbon storage in the ocean now and over time*

- AGU Fall Meeting 2016, San Francisco: PP41/43: Unraveling Phanerozoic pCO₂ and Global Temperature, PP31/34: New Perspectives on Quaternary Climate: Forcing Mechanisms, the Mid-Pleistocene Transition, and Interglacial Climate
 - AGU Fall Meeting 2015, San Francisco: PP31 Toward a Better Understanding of the Impact of Acidification, Warming, and Anoxia on Marine Carbonate Systems; PP43 Biogeochemical Cycles in the Past: Long-Term Commitments in the Future
 - Goldschmidt Conference 2014, Sacramento: 09e Geological Constraints on Perturbations to the Global Carbon Cycle
 - AGU Fall Meeting 2013, San Francisco: Reconstructing past carbon cycle perturbations: Novel Developments and Applications.
 - AGU Fall Meeting 2012, San Francisco: Paleoceanography and Paleoclimatology General Contributions; Emiliani Lecture.
 - Goldschmidt Conference 2012, Montreal: 13g-Insights into recent and Cenozoic carbon cycle perturbations using boron-based proxies; 10a-Proxy development for paleoclimate and paleocean chemistry; Co-organizer of a pre-conference Boron user meeting.
 - AGU Fall Meeting 2011, San Francisco: Paleoceanography and Paleoclimatology General Contributions; Emiliani Lecture.
 - AGU Fall Meeting 2010, San Francisco: Paleoceanography and Paleoclimatology General Contributions; Emiliani Lecture.
 - Organizer of a workshop on Paleocean-acidification and Carbon Cycle Perturbation events, funded by NSF and PAGES, August 25-29 2010, Catalina Island, California.
 - Ocean Science Meeting 2010, Portland: PA02: Calcification and Ocean Acidification - From Laboratory to Geological Time Scales.
 - AGU Fall Meeting 2009, San Francisco: PP31C: Paleoceanography and Paleoclimatology General Contributions.
 - Co-organizer of an Ocean Acidification Workshop supported by the United States Advisory Committee for the Integrated Ocean Drilling Program, Meeting January 7-9, 2009, Rosenstiel School of Marine and Atmospheric Science, Miami, Florida.
 - Goldschmidt Conference 2006, Melbourne: S11-02 Marine biogeochemical forcing of Earth's atmosphere on short and long time scales.
- Workshop organization:
 - February 2019, paleo-CO₂ across the Cenozoic; Austin Wildflower Center, TX, expert vetting and revision of published paleo-CO₂ estimates from terrestrial and marine paleo-proxies, 19 participants
 - May 2018, paleo-CO₂ across the Cenozoic; Lake Arrowhead Conference Center, CA, forms part of an NSF-funded Research Coordination Network, 35 participants
 - March 2017, paleo-CO₂ across the Cenozoic; LDEO, NY; forms part of an NSF-funded Research Coordination Network, 60 participants, laid the foundation for a new and improved paleo-CO₂ database
 - August 2010, Paleocean Acidification, 55 participants; Catalina Island, CA; resulted in a review paper in Science (Hönisch et al. 2012)
 - July 2009: Boron isotopes, 15 participants; LDEO, NY

PROFESSIONAL ORGANIZATION MEMBERSHIP

- American Geophysical Union
- The Geochemical Society
- European Geosciences Union, complimentary membership 2010

COLUMBIA UNIVERSITY COMMITTEES

- Member of the Faculty Liaison Network, 2019-present
- Member of the Faculty Discussion Group for Morningside North Campus & Nevis Master Planning, 2019-present
- Academic Review Committee, 2017-present

DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCES COMMITTEES

- Faculty Mentor for Assistant Professor Roisín Commane
- Strategic Planning Committee, 2017-present
- Curriculum committee, 2015-present
- Graduate Student Guide Revision, 2012-2015
- Atmospheric Sciences search, 2016-2017
- Undergraduate awards, 2011-2014, 2015-2016
- Biogeosciences Search, 2010-2011
- Faculty-student relations, 2008-2015
- Dept Gen Stud/Cont Ed Special Program Advisor, 2007-2008

LDEO COMMITTEES

- Steering committee, Center for Climate and Life, 2015-present
- LDEO Climate Center Committee, 2016-present
- Postdoc fellowship committee, 2010-2012
- search committees: LARP search: Carbon Cycle (2020), LARP search: Climate (2015-2016), Biological Oceanography DARS/DRS (2008), PDRS (PI: Hönisch, 2008), Cosmogenic Nuclide Science PDRS (PI: Schäfer, 2010)

OTHER PROFESSIONAL ACTIVITIES

Field work

- 2015 Culture experiments with living planktic foraminifers at the Department of Marine Sciences, Isla Magueyes Laboratories, Puerto Rico.
- 2013 Culture experiments with living planktic foraminifers at the Wrigley's Institute for Environmental Studies, Validating trace metal proxies under early Cenozoic seawater conditions, Santa Catalina Island, California.
- 2010 Culture experiments with living planktic foraminifers at the Department of Marine Sciences, Isla Magueyes Laboratories, Puerto Rico.

- 2008 Culture experiments with living planktic foraminifers at the Wrigley's Institute for Environmental Studies, Validating the B/Ca and Mg/Ca proxy, Santa Catalina Island, California.
- 2006 Culture experiments with living planktic foraminifers at the Department of Marine Sciences, Isla Magueyes Laboratories, Puerto Rico.
- 2004 Culture experiments with living planktic foraminifers at the Wrigley's Institute for Environmental Studies, Validating the $\delta^{11}\text{B}$ and U/Ca proxy, Santa Catalina Island, California.
- 2000 Foraminifer collection and culturing at Wrigley's Institute for Environmental Studies, Validating the $\delta^{11}\text{B}$ and U/Ca proxy, Santa Catalina Island, California.
- 1997 Sampling and analysis of benthic floral and faunal species composition, Strait of Magellan, Universidad de Magallanes, Punta Arenas, Chile.

Research cruise experience

- 2000 PELAGIA expeditions 153P, 154P and 157P to the South Atlantic and Indian Ocean: seawater carbonate chemistry and plankton tow collection. The task included supervision of a graduate student.
- 1998 METEOR expedition 41/1 to the South Atlantic: light attenuation measurements, dinoflagellate isolation and sediment sampling.
- 1997 VICTOR HENSEN expedition UV IV to the North Sea: water chemistry and UV-experiments with the sunshine simulator.
- 1996 VICTOR HENSEN expedition UV III to the North Sea: water chemistry sampling.

Research Diving

certified AAUS research diver since 2000

SCHOLARSHIPS AND EXTERNAL FUNDING

- Helmholtz Distinguished Professorship, "Warmer Climates and their Environmental Consequences – an Eocene-Oligocene Perspective on Future Earth", EUR 600,000/year, awarded 11/2019, acceptance pending.
- Heising-Simons Foundation, "paleopCO₂ – A Scientifically Rigorous and Accessible CO₂ 'Keeling Curve' for Geologic Time", B. Hönisch (PI), V. Ferrini (co-PI), \$315,738, 1/1/2019-12/31/2021, 3-year award.
- USGS Technical Liaison, "Boron isotope measurements on Arctic ocean benthic foraminifers", B. Hönisch, \$13,860; 9/1/2018-8/31/2019.
- OCE 16-57974, "Collaborative Research: Taking the reliability of Cenozoic boron isotope pH and pCO₂ reconstructions to the next level", B. Hönisch (PI), A. Ridgwell (co-PI), \$390,558, 3-year award
- OCE 16-57848: "Collaborative Research: An Eocene perspective on future recovery rates of climate and ocean chemistry", R. Zeebe (PI), J. Zachos (co-PI), B. Hönisch (co-PI), \$85,421, 3-year award
- Center for Climate and Life: "Carbon Uptake & Ocean Acidification", B. Hönisch (PI), Peter deMenocal (co-PI), 7/1/2016-6/30/2018, \$257,820

LDEO Climate Center grant "Workshop on Improving Reconstructions of Cenozoic pCO₂ Change", B. Hönisch (PI), K. Dyez, P. Polissar, \$ 10,000, 2016-2017.

LDEO Climate Center grant "*Deep Pacific Carbonate Chemistry Across the Mid-Pleistocene Transition*", Laura Haynes (PI) and Bärbel Hönisch (co-PI), \$ 10,000, 2016-2019.

OCE 16-36079 RCN: Improving reconstructions of Cenozoic pCO₂ and temperature change," Bärbel Hönisch (PI), Pratigya J. Polissar (co-PI), \$202,828, 10/1/2016-9/30/2019.

LDEO Climate Center grant "Mapping the distributions of boron isotopes within planktic foraminifera", Katherine Allen (PI) and Bärbel Hönisch (co-PI), \$ 8,416, 2015-2019.

CU Research Faculty Support Program "Upgrade of Sediment and Microscope Laboratory at LDEO", B. Hönisch (PI), S. Hemming (co-PI), J. McManus (co-PI), \$3,527.

Max Kade CU15-0199 "Paleo-pH reconstruction across the Middle Eocene Climatic Optimum (MECO) using boron isotopes ($\delta^{11}\text{B}$) in planktonic foraminifera from Walvis Ridge (ODP Site 1263) and the Kerguelen", Iris Möbius and Bärbel Hönisch, \$55,200, 4/1/2015-3/30/2016.

OCE 14-36079, "Thermohaline circulation and deep ocean carbonate chemistry across the mid-Pleistocene transition", L. Pena (PI), B. Hönisch (co-PI), M. Raymo, S. Goldstein, \$696,199, 9/1/2014-8/31/2017

LDEO Climate Center grant "Isotopic characterization of Dead Sea water sources for paleoclimate reconstruction", Y. Kiro, S. Goldstein, B. Hönisch (co-PI), \$8,000; 2014-2015.

USGS Technical Liaison, "Boron isotope measurements on Arctic ocean benthic foraminifers", B. Hönisch (PI) & J. Farmer (co-PI), \$13,770; 9/9/2013-9/30/2014.

OCE-12-32987, "Testing geochemical proxy relationships under variable paleo-seawater chemical compositions", B. Hönisch (PI), \$418,862; 9/1/2012-8/31/2016.

OCE-12-20554, "Ocean Acidification: Collaborative Research: Establishing The Magnitude Of Sea-Surface Acidification During the Paleocene-Eocene Thermal Maximum", B. Hönisch (PI), \$111,935; 9/1/2012-8/31/2016.

LDEO Climate Center grant "What is the Source of Tropical Marine Foraminifera in the Hudson River?", D. Abbott (PI), B. Hönisch (co-PI), \$8,000; 2012-2013.

LDEO Climate Center grant "Experimental Evaluation of the pH-Dependence of Boron-Adsorption onto Clay Minerals and Implications for the secular evolution of seawater $\delta^{11}\text{B}$ and [B]", J. Ruprecht (PI), B. Hönisch (co-PI), \$8,000, 2011-2016.

LDEO Climate Center grant "Using Boron Isotopes in Benthic Foraminifers to Evaluate Intermediate Water PCO₂ Changes in the Western Pacific Ocean over the past 30,000 Years", L. Lo (PI), B. Hönisch (co-PI), \$7,800, 2011-2012.

ARC-DP110103158, "Calcification and shell chemistry response of Southern Ocean planktic foraminifers to ocean acidification and changing climates", S.M. Eggins, W. Howard, B. Hönisch, H.J. Spero, G. Dunbar, 2010-2014, A\$360,000

- OCE-10-41133, "Ocean Acidification - Category 1: Calibration and application of the boron isotope seawater-pH indicator in deep-water corals", B. Hönisch (PI), \$439,526; 9/15/2010-8/31/2016.
- LDEO Climate Center grant "Calibrating past changes in coccolithophore calcification", Marie Tharp research support for Debora Iglesias-Rodriguez, B. Hönisch (PI), \$6,850; 2010-2011.
- PAGES workshop support, "Workshop on Paleo-ocean Acidification and Carbon Cycle Perturbation Events", B. Hönisch (PI), \$5,000; 6/1/2010-9/31/2010.
- OCE-10-32374, "Workshop on Paleo-ocean Acidification and Carbon Cycle Perturbation Events", B. Hönisch (PI), \$33,376, 6/1/2010-5/31/2013.
- LDEO Climate Center grant "Ground-truthing the B/Ca proxy in tropical planktic foraminifer shells: Investigating the effects of pH, temperature, salinity and carbonate ion". K. Allen (PI), B. Hönisch (co-PI), \$8,000; 2010-2011.
- Royal Society of England International travel grant to M. Siddall (PI) and B. Hönisch (co-PI) for Hönisch to visit Bristol University for 1 month. Purpose: Cenozoic sea level estimates and boron isotope method comparison, GBP 600.-; 2009-2010.
- OCE-09-03014 "Collaborative Research: Reconstructing deep-sea acidification during the Paleocene-Eocene Thermal Maximum", B. Hönisch (PI), \$68,185; 7/1/2009-6/30/2011.
- LDEO Climate Center grant "Corals as recorders of ocean acidity: Seasonal variation and ocean acidification from the Industrial Revolution to the present". D. Chacko (PI), B. Hönisch (co-PI), B. Linsley (co-PI), \$8,000; 2009-2010.
- LDEO Climate Center grant "Evaluating the potential of boron isotopic composition of brachiopod calcite as a proxy for Phanerozoic seawater pH and secular variation in $\delta^{11}\text{B}_{\text{seawater}}$ ". B. Hönisch (PI), N.G. Hemming (co-PI), S. Hemming (co-PI), T. Rasbury (co-PI), D. Penman (co-PI), \$8,000.-; 2009-2010.
- OCE-0751764: "Validation of the B/Ca proxy for surface seawater pH and application to measure anthropogenic ocean acidification". B. Hönisch (PI), \$337,724.-, 3/5/2008-2/28/2014.
- OCE-0623621 "Reconstructing the role of CO₂ in climate change throughout the Cenozoic Step 1: The mid-Pleistocene transition". B. Hönisch (PI), N.G. Hemming (co-PI), W.S. Broecker (co-PI), \$196,581.-; 9/1/2006-8/30/2010.
- Helmholtz Young Investigator Group "*p*AGE: paleo Acidity and CO₂-reconstructions from marine GGeochemical archives". B. Hönisch (PI), €1,832,595.-; 2006-2011. Declined in favor of faculty position at Columbia University.
- DFG Ho 3285/1-1 "Validating the boron isotope/paleo-pH proxy in benthic foraminifera". B. Hönisch (PI), €154,190.-; 1/1/2005-12/31/2006.
- LDEO Climate Center grant (funded by the Vetlesen Foundation) for foraminifera culturing on Santa Catalina Island, California, USA. B. Hönisch (PI) and N. G. Hemming (co-PI), \$8,000.-; 2004.
- Socfac grant for $\delta^{11}\text{B}$ analysis and method comparison at Southampton Oceanography Centre. B. Hönisch (PI); 2002.

DAAD graduate student travel award for foraminifera culturing at Santa Catalina Island, California, USA. B. Hönisch (PI); 2000.

DAAD undergraduate student travel award for practical training at the Instituto de la Patagonia, Universidad da Magallanes, Punta Arenas, Chile. B. Hönisch (PI). DM 1,500.-; 1997.

PUBLICATIONS: [HTTPS://PUBLONS.COM.RESEARCHER/2662298/BAERBEL-HOENISCH](https://publons.com/researcher/2662298/baerbel-hoenisch),
[HTTPS://SCHOLAR.GOOGLE.COM/CITATIONS?USER=XQGHHNWAAAAJ&HL=EN](https://scholar.google.com/citations?user=XQGHHNWAAAAJ&hl=en)

* indicates my students

§ indicates my postdocs

- in preparation -

Spero, H.J., D. Lea, J. Bijma, A. Russell and **B. Hönisch**, “Deconvolving $\delta^{13}\text{C}_{\text{DIC}}$ and $[\text{CO}_3^{2-}]$ from Planktic Foraminifera Carbon Isotope Records (carbonate ion effect)

§Dyez, K.A., **B. Hönisch**, P.B. deMenocal, “Ocean warming has larger impact on foraminiferal species abundance than ocean acidification over the last deglacial transition”, in prep.

§Möbius, I., **B. Hönisch**, O. Friedrich, “Surface ocean acidification and atmospheric carbon dioxide during the Middle-Eocene-Climate-Optimum”, in prep.

*Haynes, L., **B. Hönisch**, K. Holland, Y. Rosenthal, S.M. Eggins, “Influence of pH and Dissolved Inorganic Carbon on Planktic Foraminiferal Mg/Ca in low Mg/Ca_{sw}”, in prep. b

Hönisch, B., *C. Fish, S. Phelps, *L.L. Haynes, §K. Dyez, K. Holland, S.M. Eggins, J. Fehrenbacher, and J.I. Goes, “Unraveling Vital Effects: Photosynthesis of Symbiotic Algae in Foraminifera Hosts”, in prep.

- submitted –

Tierney, J.E., C.J. Poulsen, I.P. Montañez, T. Bhattacharya, R. Feng, H.L. Ford, **B. Hönisch**, G.N. Inglis, S.V. Petersen, N. Sagoo, C.R. Tabor, K. Thirumalai, J. Zhu, N.J. Burls, Y. Goddérís, G.L. Foster, B.T. Huber, L.C. Ivany, S. Kirtland Turner, D.J. Lunt, J.C. McElwain, B.J.W. Mills, B.L. Otto-Bliesner, A. Ridgwell, Y.G. Zhang, “The Future of Past Climate”, submitted to Science.

Holland, K., O. Branson, *L.L. Haynes, **B. Hönisch**, K. Allen, A.D.R. Russell, J. Fehrenbacher, H.J. Spero, S.M. Eggins, “Constraining multiple controls on planktic foraminiferal Mg/Ca”, submitted to Geochimica et Cosmochimica Acta.

- accepted for publication –

Harper, D.T., **B. Hönisch**, R.E. Zeebe, G. Schaffer, *L. Haynes, E. Thomas, J.C. Zachos, “The Magnitude of Surface Ocean Acidification and Carbon Release During Eocene Thermal Maximum 2 (ETM-2) compared to the Paleocene-Eocene Thermal Maximum”, accepted for publication in Paleoceanography and Paleoclimatology.

*Haynes, L.L., **Hönisch, B.**, Holland, K., Rosenthal, Y. and Eggins, S.M. (2019) Evaluating the planktic foraminiferal B/Ca proxy for application to deep time paleoceanography. *Earth and Planetary Science Letters* 528, 115824, <https://doi.org/10.1016/j.epsl.2019.115824>

*Farmer, J.R., **B. Hönisch**, L.L. Haynes, D. Kroon, S. Jung, H.L. Ford, M.E. Raymo, D.B. Bell, M. Jaume-Seguí, S. Goldstein, L.D. Pena, M. Yehudai, and J. Kim, “Deep Atlantic Ocean carbon storage and the rise of 100,000-year glacial cycles”, *Nature Geoscience*, doi:10.1038/s41561-019-0334-6.

Bonnin, E.A., Z. Zhu, J.S. Fehrenbacher, A.D. Russell, **B. Hönisch**, H.J. Spero, A.C. Gagnon, “Submicron Sodium Banding in Planktic Foraminifera Shells”, *Geochimica et Cosmochimica Acta* 253, p. 127-141.

Hönisch, B., S.M. Eggins, *L.L. Haynes, K.A. Allen, K. Holland, K. Lorbacher, “Boron proxies in Paleoceanography and Paleoclimatology” in *Analytical Methods in Earth and Environmental Science*, 264 pp., First Edition, John Wiley & Sons Ltd., 2019.

Flöter, S., J. Fietzke, *J.R. Farmer, M. Gutjahr, **B. Hönisch**, G. Nehrke, A. Eisenhauer, “Ontogenetic micro-structural constraints towards the potential of bamboo coral Mg/Ca and Ba/Ca to record ambient water temperature and dissolved [Si] and [Ba]”, *Geochimica et Cosmochimica Acta* 248, p. 43-60, <https://doi.org/10.1016/j.gca.2018.12.027>

*Farmer, J.R., O. Branson, J. Uchikawa, D. Penman, **B. Hönisch**, R. Zeebe, “Boric acid and borate incorporation in inorganic calcite inferred from boron isotopes and surface kinetic modeling”, *Geochimica et Cosmochimica Acta* 244, p. 229-247, <https://doi.org/10.1016/j.gca.2018.10.008>.

-2018-

§Dyez, K.A., **B. Hönisch**, G. Schmidt, “Early Pleistocene obliquity-scale pCO₂ variability at 1.5 million years ago”, *Paleoceanography and Paleoclimatology*, 33, <https://doi.org/10.1029/2018PA003349>.

T.L. Babila, D.E. Penman, **B. Hönisch**, D. C. Kelly, T. J. Bralower, Y. Rosenthal, J.C. Zachos (2018): Capturing the global signature of surface ocean acidification during the Paleocene-Eocene Thermal Maximum”, *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 376 (2130).

Fehrenbacher, J.S., Russell, A.D., Davis, C.V., Spero, H.J., Chu, E. and **Hönisch, B.** (2018) Ba/Ca ratios in the non-spinose planktic foraminifer *Neogloboquadrina dutertrei*: Evidence for an organic aggregate microhabitat. *Geochimica et Cosmochimica Acta* 236, 361-372.

- 2017 –

Harper, D.T., R. Zeebe, **B. Hönisch**, C. Schrader, L. Lourens, J. Zachos, “Subtropical sea surface warming and increased salinity during Eocene Thermal Maximum 2”, *Geology*, Vol. 6, p. 187-190, 2017.

*L.L. Haynes, **B. Hönisch**, §K. Dyez, K. Holland, Y. Rosenthal, *C. Fish, A. Subhas, J. Rae, “Calibration of the B/Ca proxy in the planktic foraminifer *Orbulina universa* to

- Paleocene seawater conditions”, *Paleoceanography*, Volume 32, Issue 6, P. 580-599, doi: 10.1002/2016PA003069
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- Kim, J., M. Jaume-Seguí, M. Yehudai, S.L. Goldstein, L.D. Pena, M.E. Raymo, H.L. Ford, L. Haynes*, J.R. Farmer*, **B. Hönsich**, “Reconstruction of the North Atlantic end-member of the thermohaline circulation across the Mid-Pleistocene Transition”, AGU, San Francisco, 2016.
- Yehudai, M., J. Kim, M. Jaume-Seguí, S.L. Goldstein, L.D. Pena, L. Haynes*, **B. Hönsich**, J.R. Farmer*, H.L. Ford, M.E. Raymo, T. Bickert, “Changes in Equatorial Atlantic Ocean Thermohaline Circulation Across the Mid-Pleistocene Transition”, circulation across the Mid-Pleistocene Transition”, AGU, San Francisco, 2016.
- S.L. Goldstein, L.D. Pena, M. Jaume-Seguí, J. Kim, M. Yehudai, J.R. Farmer*, H.L. Ford, L. Haynes*, **B. Hönsich**, P. Ferretti, T. Bickert, “Meridional Transect of Atlantic Overturning Circulation across the Mid-Pleistocene Transition”, AGU, San Francisco, 2016.
- Yehudai, M., J. Kim, J., M. Jaume-Seguí, S.L. Goldstein, L.D. Pena, *L.L. Haynes, **B. Hönsich**, *J. Farmer, H. Ford, M.E. Raymo, & T. Bickert, “Changes in North to Equatorial Atlantic Ocean Thermohaline Circulation Across the Mid-Pleistocene Transition”, ICP XII, Utrecht, Netherlands, 2016.
- Pena, L.D., S.L. Goldstein, M. Yehudai, J. Kim, M. Jaume-Seguí, *L.L. Haynes, *J. Farmer, H. Ford, **B. Hönsich**, M.E. Raymo, P. Ferretti, T. Bickert, “Meridional Transect of Atlantic Deep Ocean Circulation across the Mid-Pleistocene Transition”, ICP XII, Utrecht, Netherlands, 2016.
- Allen, K., L. Sikes, Y. Rosenthal, **B. Hönsich**, “New constraints on Southwest Pacific deep water carbonate chemistry from B/Ca of benthic foraminiferal calcite”, ICP XII, Utrecht, Netherlands, 2016.
- Babila, T.L., D. E. Penman, **B. Hönsich**, D. C. Kelly, T. J. Bralower, Y. Rosenthal, J.C. Zachos, “Global surface ocean acidification during the PETM”, ICP XII, Utrecht, Netherlands, 2016.
- Ford, H.L., *L.L. Haynes, **B. Hönsich**, M.E. Raymo, ICP XII, Utrecht, Netherlands, 2016. **Hönsich, B.**, *L.L. Haynes, “Estimating the boron isotope/pH sensitivity in ancient marine carbonates”, ICP XII, Utrecht, Netherlands, 2016.
- Flöter, S., J. Fietzke, M. Gutjahr, *J. Farmer, **B. Hönsich**, A. Eisenhauer, “Bamboo corals as recorders of environmental signals: Insights from laser ablation based elemental and boron isotopic investigations”, ICP XII, Utrecht, Netherlands, 2016.
- *Haynes, L., **Hönsich, B.**, *Farmer, J., Ford, H., Yehudai, M., Raymo, M., Goldstein, S., Pena, L., & Bickert, T., “Deep Atlantic Carbonate Chemistry Across the Mid-Pleistocene Transition”, ICP XII, Utrecht, Netherlands, 2016.
- Harper, D., **B. Hönsich**, J. Zachos, “Paradox of the peak-PCIM (Paleocene Carbon Isotope Maxima; ~57.8Ma) and Abrupt Global Warming”, AGU, San Francisco, 2015.
- §Möbius, I., **B. Hönsich**, “Insights into ocean acidification during the Middle Eocene Climatic Optimum from boron isotopes at Southern Ocean Site 738”, AGU, San Francisco, 2015.
- *Haynes, L., **B. Hönsich**, S. Eggins, K. Holland, Y. Rosenthal, “Calibration of the B/Ca proxy in symbiont-bearing planktonic foraminifera for application to the Paleocene-Eocene Thermal Maximum”, AGU, San Francisco, 2015.

- *Fish, C., S. Phelps, J. Goes, **B. Hönisch**, “Unraveling Vital Effects: Photosynthesis of Symbiotic Algae in Foraminifera Hosts”, AGU, San Francisco, 2015.
- §Dyez, K., **B. Hönisch**, “Climate sensitivity derived from orbital-scale, $\delta^{11}\text{B}$ -based $p\text{CO}_2$ estimates in the early Pleistocene, $\sim 1.5\text{ Ma}$ ”, AGU, San Francisco, 2015.
- Ford, H. L., *L. Haynes, **B. Hönisch** and M. E. Raymo, “*Did the mid Pliocene warmth bring the Northern Hemisphere Chill?*”, AGU, San Francisco, 2015.
- Uchikawa, J., D. Penman, *J. Farmer, **B. Hönisch**, J. Zachos, R. Zeebe, “Toward better understanding of B/Ca and $\delta^{11}\text{B}$ proxies: An experimental approach”, AGU, San Francisco, 2015.
- *Farmer, J.R., J. Uchikawa, D. Penman, **B. Hönisch**, R. Zeebe, “Outside the pH box: Boron isotopes in synthetic calcite precipitated under varying solution chemistry”, AGU, San Francisco, 2015.
- Allen, K., L. Sikes, Y. Rosenthal, **B. Hönisch**, “Bottom water carbonate ion and temperature records for the past 30,000 years in the Southwest Pacific Ocean, AGU, San Francisco, 2015.
- Rosenthal, Y., S. C. Woodard, D. Evans, *L. Haynes, S. Sosdian, C. H. Lear, **B. Hönisch**, J. Erez, “Did the Mid-Pliocene warmth bring the Northern Hemisphere Chill?”, AGU, San Francisco, 2015.
- Ezat, M., T. Rasmussen, **B. Hönisch**, J. Olsen, J. Groeneveld, L. Skinner, “Subsurface $p\text{CO}_2$, nutrient levels and ventilation in the Norwegian Sea during the past 135 kyr”, AGU, San Francisco, 2015.
- Hönisch, B.**, L.L. Haynes, D. Penman, S. M. Eggins, Y. Rosenthal, J. Zachos, “Quantifying paleocean acidification at the PETM from boron proxy records”, GSA, Baltimore, 2015.
- Allen, K.A., **B. Hönisch**, S.M. Eggins, *L.L. Haynes, Y. Rosenthal, J. Yu, “Sr/Ca of planktic foraminiferal calcite varies with pH and DIC in culture experiments”, GSA, Baltimore, 2015.
- Holland, K., S. Eggins, **B. Hönisch**, *L. Haynes, A. Russell, J. Fehrenbacher, “Probing the internal calcification chemistry of *O. universa* B/Ca”, Goldschmidt Conference, Prague, 2015.
- Hönisch, B.**, S.M. Eggins, Boron isotopes, seawater-pH and paleo- $p\text{CO}_2$, Goldschmidt Conference, Prague, 2015.
- Holland, K., S. Eggins, **B. Hönisch**, *L.L. Haynes, A. Russell, J. Fehrenbacher, “Controls on B/Ca incorporation in tests of cultured *O. universa*”, AGU, San Francisco, 2014.
- *Haynes, L.L., **B. Hönisch**, S. Eggins, K. Holland, Y. Rosenthal, “Calibration of the B/Ca proxy in cultured *O. universa* tests under Paleogene seawater conditions”, AGU, San Francisco, 2014.
- Hönisch, B.**, *L.L. Haynes, D.E. Penman, A. Ridgwell, J. Uchikawa, J.C. Zachos, R.E. Zeebe, “Estimating Ocean Acidification in the Geological Record, KEYNOTE LECTURE, Geo Frankfurt, Frankfurt, 2014.
- *Farmer, J., **B. Hönisch**, L. Robinson, “Transfer of Bomb Radiocarbon to the Intermediate Ocean: Reconstructions from North Atlantic Bamboo Corals”, Radiocarbon in the Environment Conference, Belfast, 2014.

- Hönisch, B.** “Challenges and opportunities to decipher the geological record of ocean acidification”, INVITED PRESENTATION, Gordon Conference on Ocean Global Change Biology, New Hampshire, 2014.
- *Haynes, L.L., **B. Hönisch**, S. Eggins, K. Holland, Y. Rosenthal, *C. Baptist, “Calibration of the B/Ca proxy in cultured *O. universa* tests during simulated Paleocene-Eocene ocean acidification”, Gordon Conference on Ocean Global Change Biology, New Hampshire, 2014.
- Hönisch, B.**, *C. Baptist, S.M. Eggins, K. Holland, H.J. Spero, P. Swart, “Effect of Seawater Mg/Ca Ratio on Planktic Foraminifera Stable Isotope and Mg/Ca Composition”, Goldschmidt, Sacramento, 2014.
- Bonnin, E.A., M.B. Kogut, Z. Zhu, **B. Hönisch**, A.D. Russell, H.J. Spero, A.C. Gagnon, “Systematic Sub-Micron Na/Ca Banding in Cultured Planktic Foraminifera”, Goldschmidt, Sacramento, 2014.
- Gutjahr, M., L. Bordier, E. Douville, *J. Farmer, G.L. Foster, E. Hathorne, **B. Hönisch**, D. Lemarchand, M. McCulloch, J. Noireaux, N. Pallavicini, I. Rodushkin, P. Roux, J. Stewart, F. Thil, C.-F. You, “Boron Isotope Intercomparison Project (BIIP): Development of a new carbonate standard for stable isotope analyses, EGU, Vienna, 2014.
- Hönisch, B.**, D. Penman, R. Zeebe, J. Zachos, E. Thomas, “Boron proxy evidence for ocean acidification during the Paleocene-Eocene Thermal Maximum”, AGU, San Francisco, 2013.
- Harper D.T., D.E. Penman, **B. Hönisch**, J.C. Zachos, “Long- and short-term trends in seawater B/Ca and pH across the Paleocene-Eocene boundary”, AGU, San Francisco, 2013.
- Eggins, S., K. Holland, **B. Hönisch**, H. Spero, K. Allen*, “What is the right temperature sensitivity for foraminiferal Mg/Ca paleothermometry in ancient oceans?” AGU, San Francisco, 2013.
- *Allen, K.A, E.L. Sikes, A. Elmore, **B. Hönisch**, P. deMenocal, “Deep-water carbonate chemistry in the Southwest Pacific Ocean since the LGM”, AGU, San Francisco, 2013.
- *Farmer, J.R., **B. Hönisch**, L. Robinson, “Radiocarbon age reversals in modern deep-sea bamboo corals from the North Atlantic”, AGU, San Francisco, 2013.
- Penman, D.E., **B. Hönisch**, J.C. Zachos, R.E. Zeebe, “Boron proxy evidence for ocean acidification during the Paleocene-Eocene Thermal Maximum”, ICP 11, Barcelona, 2013.
- *Farmer, J.R., **B. Hönisch**, L. Robinson, T. Hill, “What controls the boron isotopic composition of deep-sea bamboo corals? Seawater pH versus biomineralization”, ICP 11, Barcelona, 2013.
- *Allen, K.A, **B. Hönisch**, S.M. Eggins, Y. Rosenthal, H.J. Spero, “What controls boron incorporation in foraminiferal calcite?”, AGU, San Francisco, 2012.
- Hönisch, B.**, *K.A. Allen, S.M. Eggins, H.J. Spero, D.W. Lea, A.D. Russell, Y. Rosenthal, J. Yu, H. Elderfield, “The effect of salinity on the Mg/Ca ratio in cultured and natural planktic foraminifers”, AGU, San Francisco, 2012.

Vetter, L., R. Kozdon, C.I. Mora, S.M. Eggins, J.W. Valley, **B. Hönisch**, and H.J. Spero, "Micron-scale intrashell $\delta^{18}\text{O}$ variation in cultured planktic foraminifers", Goldschmidt, Montreal, 2012.

[§]Raitzsch, M., **B. Hönisch**, "Cenozoic boron isotope variations in benthic foraminifers", Goldschmidt, Montreal, 2012.

Spero, H.J., S.M. Eggins, A.D. Russell, L. Vetter, **B. Hönisch**, "Timing and Mechanism for Intratest Mg/Ca Variability in Living Planktic Foraminifera", Goldschmidt, Montreal, 2012.

*Allen, K.A., **B. Hönisch**, S.M. Eggins and Y. Rosenthal, "Influence of seawater carbonate chemistry on B/Ca in cultured planktic foraminifera", Goldschmidt, Montreal, 2012.

*Farmer, J.R., **B. Hönisch**, L. Robinson, T. Hill and M. Lavigne, "Boron isotopes in deep-sea bamboo corals: A tracer for anthropogenic deep ocean acidification?", Goldschmidt, Montreal, 2012.

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Hönisch, B., A. Ridgwell, E. Thomas, J.C. Zachos, S. Gibbs, "The geological record of ocean acidification", INVITED PRESENTATION, AGU, San Francisco, 2011.

*Farmer, J., **B. Hönisch**, T. Hill, M. Lavigne, L. Robinson, "Boron isotopes in deep-sea bamboo corals: pH, vital effects and environmental factors", AGU, San Francisco, 2011.

*Allen, K. A., **B. Hönisch**, S.M. Eggins, Y. Rosenthal, "Carbonate system and salinity controls on B/Ca of tropical and subtropical planktic foraminifera: Insight from culture experiments", AGU, San Francisco, 2011.

*Monahan, K.M., D.H. Abbott, **B. Hönisch**, D. Breger, "Low latitude pelagic foraminifera found in the Hudson River: Are they Hurricane deposits?", AGU, San Francisco, 2011

Penman, D.E., J.C. Zachos, R.E. Zeebe, **B. Hönisch**, S. Bohaty, "B/Ca of planktic foraminifera documents elevated $p\text{CO}_2$ and ocean acidification during the Paleocene-Eocene Thermal Maximum", AGU, San Francisco, 2011.

Eggins, S.M., W. Howard, H.J. Spero, **B. Hönisch**, G. Dunbar, "Does calcification in Southern Ocean planktic foraminifers respond to Ω_{calcite} , temperature, or nutrient availability?", Symposium: Ocean acidification and implications for living marine resources in the Southern Hemisphere, Canberra, Australia, 2011.

Penman, D., J. Zachos, **B. Hönisch**, S.M. Eggins, R.E. Zeebe, "Boron proxy evidence for surface ocean acidification & elevated $p\text{CO}_2$ during the PETM", Goldschmidt Conference, Prague, 2011.

Hönisch, B., *K.A. Allen, [§]O. Hyams, D. Penman, [§]M. Raitzsch, [§]J. Ruprecht, E. Thomas, J. Zachos, "Ocean acidification during the Cenozoic", INVITED PRESENTATION, Geochemistry of the Earth's surface meeting, Boulder, Colorado, June 3-7, 2011.

Penman, D., J. Zachos, **B. Hönisch**, S.M. Eggins, R.E. Zeebe, "Boron proxy evidence for surface ocean acidification & higher $p\text{CO}_2$ during the PETM", Climate and Biota of the Early Paleogene, Salzburg, June 5-8, 2011.

- Hönisch, B.**, S^O. Hyams, S^M. Raitzsch, E. Thomas, J.C. Zachos, R.E. Zeebe
 “Reconstructing deep-sea acidification during the early Cenozoic“, INVITED
 PRESENTATION, AGU, San Francisco, 2010.
- Zachos, J.C., L.D. Anderson, R.E. Brown, **B. Hönisch**, C. Kelly, D. Penman, E. Thomas, R.E.
 Zeebe, “Ocean Acidification during the Paleocene-Eocene Thermal Maximum:
 Constraints from Multiple Proxies“, AGU, San Francisco, 2010.
- Eggins, S.M., H. J. Spero; L. Vetter; **B. Hönisch**, “Resolving ontogenetic from gametogenic
 and outer crust calcification in planktic foraminifers“, AGU, San Francisco, 2010.
- Vetter, L., H.J. Spero, C.I. Mora, S.M. Eggins, R. Kozdon, J.W. Valley, **B. Hönisch**,
 “Intrashell isotopic and trace element variation at the micron-scale in cultured
 planktonic foraminifera“, AGU, San Francisco, 2010.
- Hönisch, B.**, S^O. Hyams, E. Thomas, “Reconstructing deep-sea acidification during the
 PETM“, ICP10, San Diego, 2010.
- Robinson, L.F., **B. Hönisch**, D.H. Case, M. Auro, B.E. Rosenheim, *S. Hale, “New
 geochemical proxies for temperature and pH in deep-sea corals“, ICP10, San
 Diego, 2010.
- Eggins, S.M., H.J. Spero, A.D. Russell, L. Vetter, **B. Hönisch**, *K.A. Allen, “Probing the basis
 for the Mg/Ca sensitivity and trace metal proxies in planktic foraminifers“,
 ICP10, San Diego, 2010.
- Bartoli, G., **B. Hönisch**, R.E. Zeebe, “Atmospheric CO₂ decline during the Pliocene
 intensification of Northern Hemisphere Glaciations“, ICP10, San Diego,
 2010.
- *Allen, K.A., **B. Hönisch**, S.M. Eggins, Y. Rosenthal, J. Yu, H.J. Spero, J.N. Richey, “B/Ca in
 planktic foraminifers: Comparison of culture and sediment core material“, ICP10,
 San Diego, BEST STUDENT POSTER AWARD, 2010.
- Vetter, L., H.J. Spero, C.I. Mora, S.M. Eggins, R. Kozdon, J.W. Valley, **B. Hönisch**,
 “Intrashell isotopic and trace element variation at the micron-scale in cultured
 planktonic foraminifera“, ICP10, San Diego, 2010.
- Spero, H.J., S.M. Eggins, L. Vetter, A.D. Russell, **B. Hönisch**, “Experimental Perspectives on
 Planktonic Foraminifera Intrashell Mg/Ca Variability“, ICP10, San Diego, 2010.
- Grelaud, M., G. Marino, P. Ziveri, **B. Hönisch**, E. Rohling, “Impacts of the last interglacial
 sapropel S5 on the eastern Mediterranean marine carbonate system and calcifying
 organisms“, ICP10, San Diego, 2010.
- Hönisch, B.**, “Comparison of surface ocean carbonate chemistry proxies“, Workshop on
 Palaeo-CO₂, Bristol, 7-8 July 2010.
- Robinson, L.F., **B. Hönisch**, M.E. Auro, “Boron isotopes in Southern Ocean deep corals“,
 Goldschmidt Conference, Knoxville, 2010.
- Hönisch, B.**, Cenozoic variations in atmospheric CO₂ and ocean carbonate chemistry,
 EGU, Vienna, 2010, INVITED.
- Moyer, R.P., K.P. Helmle, **B. Hönisch**, *D. Chacko, B. Linsley, “Historical records of coral
 geochemistry and growth and their relationship to anthropogenic ocean
 acidification“, Ocean Sciences Meeting, Portland, 2010.

- Eggins, S., **B. Hönlisch**, S. Doo, L. Vetter, *K. Allen, H. Spero, A. Russell, "Reduced temperature sensitivity of foraminiferal Mg/Ca seawater thermometry in ancient oceans", Ocean Sciences Meeting, Portland, 2010.
- *Allen, K., **B. Hönlisch**, "Comparing planktic foraminiferal B/Ca and boron isotopes as paleo-CO₂ proxies", Ocean Sciences Meeting, Portland, 2010.
- *Allen, K., **B. Hönlisch**, J. Yu, S. Eggins, H. Spero, H. Elderfield, "Validating the B/Ca proxy for seawater carbonate chemistry – evidence from culture experiments, AGU, San Francisco, 2009.
- Raitzsch, M. & **B. Hönlisch**, "Cenozoic evolution of the boron isotopic composition of seawater", AGU, San Francisco, 2009.
- Hönlisch, B.** & J. Bijma, "Partial shell dissolution and geochemical proxies in planktic foraminifers", AGU, San Francisco, 2009.
- Bartoli, G., **B. Hönlisch**, R.E. Zeebe, "Pliocene atmospheric CO₂ changes", AGU, San Francisco, 2009, INVITED.
- Hönlisch, B.**, G. Bartoli, R.E. Zeebe, N. G. Hemming, D. Archer, M. Siddall, J.F. McManus, "Boron isotope perspective on the CO₂ history beyond ice cores", INVITED presentation at PAGES Past Interglacials Meeting, Mytilene, 2009.
- Hönlisch, B.**, G. Bartoli, R.E. Zeebe, N. G. Hemming, D. Archer, M. Siddall, J.F. McManus, "Boron isotope perspective on the CO₂ history beyond ice cores", INVITED presentation at PAGES Open Science Meeting, Corvallis, 2009.
- Hönlisch, B.**, "Estimating past carbonate chemistry from Marine archives", Thematic Working Group on Ocean Acidification and Ocean Carbon Cycle, Meeting January 7-9, 2009, Rosenstiel School of Marine and Atmospheric Science, Miami, Florida.
- *Allen, K., **B. Hönlisch**, S. Eggins, H. Spero, Effects of pH and Temperature on Calcification of the Planktic Foraminifer *O. universa*: Insights from Culture Experiments, AGU, San Francisco, 2008.
- Bartoli, G., **B. Hönlisch**, R.E. Zeebe, Atmospheric CO₂ Changes During the Pliocene Epoch Revealed by Foraminiferal Boron Isotope Ratio, AGU, San Francisco, 2008.
- Benthien, A., B. Balestra, **B. Hönlisch**, G. Mollenhauer, Reconstruction of surface water pCO₂ in the eastern equatorial Atlantic based on alkenone and boron isotopes, AGU, San Francisco, 2008.
- *Penman, D., E.T. Rasbury, N.G. Hemming, **B. Hönlisch**, P. Abejar, S., Butts, Heavy boron isotopic composition of Pennsylvanian brachiopod calcite: implications for pH, CO₂ and secular variation of seawater d¹¹B, AGU, San Francisco, 2008.
- Spero, H.J., S.M. Eggins, L. Vetter, A.D. Russell, **B. Hönlisch**, Experimental Perspective on Cause and Impact of Planktonic Foraminifera Intrashell Mg/Ca variability on Paleoceanographic Applications, AGU, San Francisco, 2008.
- Fabry, V.J., K. Allen, S.M. Eggins, **B. Hönlisch**, F. Lombard, H. Spero, Impacts of ocean acidification on zooplankton, The Second Symposium on The Ocean in a High-CO₂ World, Monaco, 2008.
- Hemming, N.G., **B. Hönlisch**, C. Bouman, In-run Corrections for Instrumental Fractionation of Boron Isotopes by NTIMS: Filament Material and Loading Matrix Controls, Goldschmidt Conference, Vancouver, 2008.

- Köhler, P., **B. Hönisch**, R. Bintanja, H. Fischer, The Carbon Cycle during the Mid Pleistocene Transition: The Southern Ocean Decoupling Hypothesis, EGU, Vienna, 2008.
- Köhler, P., **B. Hönisch**, R. Bintanja, H. Fischer, The Carbon Cycle during the Mid Pleistocene Transition: The Southern Ocean Decoupling Hypothesis, Climate change : from the geologic past to the uncertain future : A tribute to André Berger - 26 to 29 May 2008 - Louvain-la-Neuve University - Belgium, 2008.
- Hönisch, B.**, Barbara Balestra, Torsten Bickert, N. Gary Hemming, Mark Siddall, "Quaternary records of marine carbonate chemistry and atmospheric CO₂", INVITED presentation at the International Conference on Paleoceanography 9, Shanghai.
- M. Siddall, **B. Hönisch**, C. Lear, D. McGee, H. Pälike, P. Parekh, E.J. Rohling, W. Thompson, G. Winckler, "Long-term consistencies in the benthic oxygen-isotope record between ocean basins", invited presentation at the International Conference on Paleoceanography 9, Shanghai.
- Hönisch, B.**, "Empirical systematics of the boron isotope proxy and application to the mid-Pleistocene transition", INVITED presentation at the Gordon Conference on Chemical Oceanography, Tilton, New Hampshire, 2007.
- Hönisch, B.**, N.G. Hemming, Overview and Brief History of the Boron Isotope Proxy for Past Seawater pH, INVITED presentation at the AGU Spring Meeting, Acapulco, Mexico, 2007.
- Köhler, P., **B. Hönisch**, H. Fischer, The Carbon Cycle during the Mid Pleistocene Transition, poster at EGU, Vienna, 2007.
- Hönisch, B.**, N.G. Hemming, Quantitative PCO₂ reconstructions across the mid-Pleistocene transition based on boron isotopes in planktic foraminifers, INVITED presentation at the Goldschmidt Conference, Melbourne, 2006.
- Hönisch, B.**, N.G. Hemming and T. Bickert, Paleo-Validation of the Boron Isotope Proxy in Benthic and Planktic Foraminifers, oral presentation at the Ocean Sciences Meeting, Honolulu, Hawaii, 2006.
- Hönisch, B.**, N.G. Hemming, "Challenges of and for the boron isotope proxy for past seawater-pH", INVITED presentation at NSF workshop, San Francisco, USA, 2005.
- Hönisch, B.**, T. Bickert, and N.G. Hemming, Boron Isotopes in Benthic Foraminifers – Monospecific Coretop Calibration and Paleo-Reconstruction Through Two Glacial Cycles, oral presentation at AGU Fall Meeting, San Francisco, USA, 2005.
- Russell, A.D., **B. Hönisch**, H.J. Spero, D.W. Lea, The influence of light on U, Sr, and Mg incorporation into planktic foraminifera, and other culture results, poster at AGU Fall Meeting, San Francisco, USA, 2005.
- Yu, J., H. Elderfield and **B. Hönisch**, B/Ca in foraminiferal calcium carbonate and its potential as a paleo-pH proxy, poster at AGU Fall Meeting, San Francisco, USA, 2005.
- Hemming, N.G. and **B. Hönisch**, A critical review and recent advances in the boron isotope paleo-pH proxy, invited talk at Goldschmidt Conference, Moscow, Idaho, USA, 2005.

- Russell, A.D., **B. Hönisch**, H. Spero, and D. Lea, Influence of Environmental Factors over the Incorporation of U, Cd, and Minor Metals into Foraminiferal Calcite: Results of Summer 2004 Culture Experiments, poster presented at AGU, San Francisco, USA, 2004.
- Hönisch, B.**, N.G. Hemming, A 140,000 year record of surface seawater *pH* in the eastern equatorial Atlantic, poster presented at ICP VIII, Biarritz, France, 2004.
- Hönisch, B.**, N.G. Hemming, Ground-truthing the boron isotope paleo-*pH* proxy in planktonic foraminifera shells: Partial dissolution and shell size effects, poster presented at AGU, San Francisco, USA, 2003.
- Gussone, N., A. Eisenhauer, **B. Hönisch**, M. Dietzel, J. Bijma, A. Heuser, B. Bock, F. Böhm, H. J. Spero, D. W. Lea, and T. F. Nägler, Temperature control on Ca isotope fractionation in carbonates and its application in marine geochemistry, poster presented at Earth Sciences into the 3. Millenium: Methods, Materials, Mechanisms, Bochum, Germany, 2003.
- Hönisch, B.**, N.G. Hemming, A.G. Grottoli, A. Amat, G.N. Hanson, J. Bijma, The effect of light, respiration and $p\text{CO}_2$ on $\delta^{11}\text{B}$ in coral skeletons: results from culture and field experiments, oral presentation given at EGS-AGU Joint Assembly, Nice, France, 2003.
- Hönisch, B.**, J. Bijma, N. Gussone, H. J. Spero, D. W. Lea, D. Nürnberg, and A. Eisenhauer, Post- depositional effects on stable isotopes and trace metals in foraminiferal calcite - evidence from dissolution experiments, poster presented at EGS, Nice, France, 2002.
- Bijma, J., **B. Hönisch**, R. E. Zeebe, A. Sanyal, H. J. Spero, D. W. Lea, A. Amat, D. Ruiz-Pino, A. Juillet-Leclerc, Y. Suzuki, and A. Eisenhauer, Towards a mechanistic understanding of boron isotope ratios in biogenic carbonates as recorders of seawater *pH*, poster presented at AGU Fall Meeting, San Francisco, USA, 2001.
- Russell, A. D., **B. Hönisch**, H. Spero, D. W. Lea, D. Pak, and M. Schmidt, Effects of changes in carbonate ion concentration in the incorporation of uranium into foraminiferal calcite, poster presented at AGU, San Francisco, USA, 2001.
- Zondervan, I., B. Rost, R. Zeebe, **B. Hönisch** and U. Riebesell, Rising atmospheric CO_2 slows down marine planktonic calcification, SOLAS meeting, Damp, Germany, 2000.

OTHER INVITED TALKS

- September 2019, Cenozoic paleo- CO_2 and ocean carbon storage, Climate and Environmental Physics seminar of the Physics Institute, University of Bern, Switzerland.
- May 2018, "Reconstructing carbonate chemistry in Earth history", UC Santa Cruz, USA.
- March 2018, "Reconstructing marine carbonate chemistry in Earth history", Marie Tharp Lecture Series, GEOMAR, Germany.
- October 2017, "Reconstructing past climate change from chemical signals stored in ocean sediments", Brooklyn High School of the Arts, Brooklyn, USA.
- March 2017, "Reconstructing past climate change from chemical signals stored in ocean sediments", American Museum of Natural History, Educators evening, New

York, USA.

- May 2016, "The challenge of deciphering information from the paleo record", 4th International Symposium on the Ocean in a high CO₂ world, PLENARY TALK, Hobart, Tasmania
- April 2016, "New proxies for past CO₂ levels", Brown University, USA
- October 2015, "Reconstructing Ocean Acidification in Earth History", D. Foster Hewett Symposium on Ocean Acidification, Lehigh University, USA
- September 2014, "Challenges and opportunities to decipher the geological record of ocean acidification", Penn State, USA
- September 2014, "Introduction to Ocean Acidification", 2nd CliMates International Summit, Columbia University
- June 2014, "Opportunities and Challenges of deciphering the geological record of ocean acidification", Gordon Conference on Ocean Global Change Biology, New Hampshire, USA
- March 2014, "Ocean acidification and climate change", LDEO Public Lecture Series, watch the video here: <http://www.ldeo.columbia.edu/video/ocean-acidification-and-climate-change>
- September 2013, "The geological record of ocean acidification", NASA GISS.
- May 2013, "The geological record of ocean acidification", Massachusetts Institute of Technology.
- February 2013, "The geological record of ocean acidification", USC Women in Science and Engineering (WiSE) Distinguished Lecturer, University of Southern California, USA.
- January 2013, "The geological record of carbon dioxide in the atmosphere and ocean acidification", Packer Collegiate Institute, K-12 School in Brooklyn NY.
- 2011/2012, "Estimating Cenozoic atmospheric CO₂ from ocean carbonate chemistry", Ocean Leadership Distinguished Lecturer: Case Western University, San Diego State University, University of South Florida, Rice University, University of Houston, Binghamton University, University of New England, USA.
- March 2011, "Paleocean acidification inferred from marine carbonates", Rutgers University, USA.
- February 2011, "Proxy calibration and reconstructions of ocean carbonate chemistry over the past 55 million years", Dalhousie University, Halifax, Canada.
- October 2010, "Proxy calibration and reconstructions of Cenozoic ocean carbonate chemistry", Smith Lecture Series, University of Michigan, USA.
- May 2010, "Cenozoic variations in atmospheric CO₂ and ocean carbonate chemistry", Cambridge University, UK.
- November 2009, "Comparing boron isotopes and B/Ca ratios for reconstructing paleo-pCO₂ - Who is K_D?" Boston University, USA.
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- June 2009 "Boron isotope perspective on the CO₂ history beyond ice cores", Canberra, RSES, ANU, Australia.

- December 2008, Motivating high school students to spread the word about anthropogenic climate change, NYCiSchool, New York.
- November 2008, "Estimating atmospheric CO₂ from marine archives: The mid-Pleistocene Transition", Texas A&M, College Station.
- November 2007 "The boron isotope proxy for past seawater-pH", Georgia Institute of Technology.
- April 2007 "Pleistocene records of marine carbonate chemistry and atmospheric CO₂", Crafoord Prize-Winner Ceremony, Lund, Sweden.
- April 2007 "Pleistocene records of marine carbonate chemistry", Rutgers University.
- March 2007 "Alaska and the Polar Regions", Metuchen Elementary School, New Jersey.
- January 2006 "Reconstructing carbonate chemistry from marine geochemical archives", Massachusetts Institute of Technology.
- May 2005 "Reconstructing aqueous PCO₂ and seawater pH: The boron isotope/paleo pH proxy", International University Bremen.
- April 2005 "Reconstructing aqueous PCO₂ and seawater pH – Boron isotopes in ancient foraminifera shells record marine carbonate chemistry", Alfred Wegener Institute.
- March 2005 "Reconstructing aqueous PCO₂ and seawater pH – Boron isotopes in ancient foraminifera shells record marine carbonate chemistry", Yale University.
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