Stanford



Page Chamberlain

Professor of Earth and Planetary Sciences and of Earth System Science

Earth & Planetary Sciences

Bio

ACADEMIC APPOINTMENTS

- Professor, Earth & Planetary Sciences
- Professor, Earth System Science
- Member, Bio-X
- Affiliate, Stanford Woods Institute for the Environment

ADMINISTRATIVE APPOINTMENTS

- Faculty, Dept. Geological Sciences, (2017- present)
- Faculty Affiliate, Woods Institute for the Environment, Stanford University, (2009- present)
- Courtesy Professor, Department of Geological and Environmental Sciences, Stanford University, (2008- present)
- Faculty, Environmental Earth System Science, Stanford University, (2008- present)
- Visiting Professor, ETH Zurich, Switzerland, (2008-2009)
- Faculty, IPER Program, Stanford University, (2005- present)
- Chair, Department of Geological and Environmental Sciences, Stanford University, (2004-2007)
- Faculty, Earth Systems Program, Stanford University, (2002- present)
- Professor, Stanford University, (2001- present)
- Co-Director, Stanford/USGS SHRIMP RG ion-microprobe facility, (2001-2004)
- Short term Visitor, Smithsonian Institute, (1997-1997)
- Visiting Investigator, Carnegie Institution of Washington Geophysical Laboratory, (1997-1997)
- Professor, Dartmouth College, (1994-2001)
- Chair, Dartmouth College Department of Earth Sciences, (1992-1996)
- Associate Professor, Dartmouth College, (1989-1994)
- Assistant Professor, Dartmouth College, (1987-1989)
- Postdoctoral Fellow, Geophysical Laboratory, (1985-1987)

HONORS AND AWARDS

- Gustav Steinman Medal, German Geological Society (2019)
- Senckenberg Research Award, Senckenberg Institute, Germany (2015)
- Elected Fellow, American Geophysical Union (2013)

- Alexander Winchell Distinguished Alumni Award, Syracuse University (2012)
- Alexander von Humboldt Research Award, Germany (2012)
- Elected Fellow, Geochemical Society (2009)
- Frederick Hall Professor of Mineralogy and Geology, . (1997)
- Elected Fellow, Mineralogical Society of America (1994)
- Pat and John Rosenwald Professorship, . (1992-1997)
- Presidential Young Investigator Award, National Science Foundation (1989-1994)
- Jerry Goldstein Award for Research, . (1989)
- Achievement Medal, United States Coast Guard (1978)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Editor, American Journal of Science (2009 - present)
- Co-director, Environmental Measurements Laboratory, SES (2008 - present)
- Co-director, Stanford/USGS Ion Microprobe Facility (2001 - 2004)
- Associate Editor, Geological Society of America Bulletin (1993 - 1996)
- Associate Editor, Geology (1992 - 1995)
- Associate Editor, American Journal of Science (1989 - 2009)

PROGRAM AFFILIATIONS

- Center for East Asian Studies

PROFESSIONAL EDUCATION

- Ph.D., Harvard University , Geology and Geophysics (1985)
- M.A., Dartmouth College , Earth Sciences (1981)
- B.S., Syracuse University , Earth Sciences (1979)

LINKS

- Terrestrial Paleoclimate Group: https://paleoclimate.stanford.edu

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Research

I use stable and radiogenic isotopes to understand Earth system history. These studies examine the link between climate, tectonics, biological, and surface processes. Projects include: 1) examining the terrestrial climate history of the Earth focusing on periods of time in the past that had CO 2-levels similar to the present and to future projections; and 2) addressing how the chemical weathering of the Earth's crust affects both the long- and short-term carbon cycle. Field areas for these studies are in the Cascades, Rocky Mountains, Sierra Nevada, the European Alps, Tibet and the Himalaya and the Southern Alps of New Zealand.

International Collaborations

Much of the research that I do has an international component. Specifically, I have collaborations with: 1) the Senckenberg Biodiversity and Climate Research Center in Frankfurt Germany as a Humboldt Fellow and 2) the Chinese University of Geosciences in Bejiing China where I collaborate with Professor Yuan Gao.

Teaching

I teach courses at the undergraduate and graduate level in isotope biogeochemistry, Earth system history, and the relationship between climate, surface processes and tectonics.

Professional Activities

Editor American Journal of Science; Co-Director Stanford Stable Isotope Biogeochemistry Laboratory (present);Chair, Department of Geological and Environmental Sciences (2004-07); Co-Director Stanford/USGS SHRIMP Ion microprobe facility (2001-04)

PROJECTS

- Research project - Stanford
- Research project - Stanford
- Research project - Stanford
- Research project - Stanford
- Research project - Stanford
- Research project - Stanford

Teaching

COURSES

2026-27

- Research Proposal Development and Delivery: EPS 307, ESS 307 (Spr)
- Senior Seminar: Issues in Earth Sciences: EPS 150 (Win)

2025-26

- Research Proposal Development and Delivery: EPS 307, ESS 307 (Spr)
- Senior Seminar: Issues in Earth Sciences: EPS 150 (Win)

2024-25

- Research Proposal Development and Delivery: EPS 307, ESS 307 (Spr)
- Senior Seminar: Issues in Earth Sciences: EPS 150 (Aut)

2023-24

- Research Proposal Development and Delivery: EPS 307, ESS 307 (Spr)
- Senior Seminar: Issues in Earth Sciences: EPS 150, GEOPHYS 199 (Aut)

STANFORD ADVISEES

Doctoral (Program)

Xueyao Cheng, Emily Nigro

Publications

PUBLICATIONS

- **Clumped isotope constraints on warming and precipitation seasonality in Mongolia sue to Altai uplift.** *American Journal of Science*
  Caves Rugenstein, J., Methner, K., Kukla, T., Mulch, A., Lüdecke, T., Wacker, U., Feibig, J., Meltzer, A., Wegmann , K., Zeitler, P., Pazzaglia,, F., Chamberlain, P.

2022; 322: 28-24

- **The PATCH Lab v.1.0: A database and workspace for Cenozoic terrestrial paleoclimate and environmental reconstruction** *American Journal of Science*
  Kukla, T., Rugenstein, , J., Driscoll, , E., Ibarra, D., Chamberlain, P.
  2022; 322: 1089-1123
- **Drier winters drove Cenozoic habitat expansion in North America.** *AGU Advances*
  Kukla, T., Rugenstein, J., Ibarra, D., Winnick, M., Stromberg, C., Chamberlain, P.
  2022; 3
- **Triple oxygen isotope systematics of diatom opal-A to opal-CT to microquartz in deep sea sediments.** *Geochimica Cosmochimica Acta*
  Ibarra, D., Yanchilina, , A., Lloyd, M., Methner, K., Chamberlain, P., Yam, R., Shemesh, A., Stolper, D.
  2022; 320: 304-323
- **Warm high-elevation Mid-latitudes during the Miocene Climatic Optimum: Paleosol clumped isotope temperatures from the Northern Rocky Mountain USA** *.Paleooceanography and Paleoclimatology*
  Methner, K., Mulch, A., Feibig, J., Krsnik, E., Loffer, N., Bajnai, C., Chamberlain, P.
  2021; 36
- **Triple oxygen isotope paleoaltimetry of crystalline rocks** *Frontiers in Earth and Planetary Sciences,*
  Chamberlain, P., Ibarra, D., Kukla, T., Methner, K., Gao, Y.
  2021; 9: 633687
- **High-resolution paleotopography of the John Day region, Oregon, USA.** *Frontiers in Earth and Planetary Sciences.*
  Kukla, T., Ibarra, D., Caves Rugenstein, J., Gooley, J., Mullins, C., Kramer, S., Moragne, D., Chamberlain, P.
  2021
- **Reconstructing past elevations from triple oxygen isotopes of lacustrine chert: Application to the Eocene Nevadoplano, Elko Basin, Nevada, USA.** *Frontiers in Earth and Planetary Sciences,*
  Ibarra, D., Kukla, T., Methner, K., Mulch, A., Chamberlain, P.
  2021; 9: . 633687
- **Terrestrial climate in mid-latitude East Asia from the latest Cretaceous to the earliest Paleogene: A multiproxy record from the Songliao Basin in northeastern China** *Earth Science Reviews*
  Gao, Y., Ibarra, D., Caves Rugenstein, J., Chen, J., Kukla, T., Methner, K., Gao, Y., Huang, H., Lin, Z., Zhang, I., Dangpeng, X., Carroll, A., Graham, et al
  2021; 216: 103572.
- **Amazon resilience to past and present drying** *Global and Planetary Change*
  Kukla, T., Ahlstrom, A., Maezum, S., Chevalie, M., Lu, Z., Winnick, M., Chamberlain, P.
  2021; 202: 103520
- **Triple oxygen isotopes of meteoric hydrothermal system – implications for paleoaltimetry** *Geochemical Perspective Letters*
  Chamberlain, P., Ibarra, D., Lloyd, M., Kukla, T., Sharp, Z., Gao, Y., Sjostrom, D.
  2020; 15: 6-9
- **Constraints on surface temperatures 3.4 billion years ago based on triple oxygen isotopes of cherts from the Barberton Greenstone Belt South Africa, and the problem of sample selection.** *American Journal of Science*
  Lowe, D., Ibarra, D., Drabon, N., Chamberlain, P.
  2020; 320: 790-814
- **Modeling the evolution of land plants and the silicate weathering feedback.** *American Journal of Science*
  Ibarra, D., Caves, J., Bachan, A., Lau, K., Thomas, D., Lee, J., Boyce, K., Chamberlain, P.
  2019; 318: 1-43
- **The sensitivity of terrestrial #18O gradients to hydroclimate.** *Journal of Geophysical Research – Atmospheres*
  Kukla, T., Winnick, M., Maher, K., Ibarra, D., Chamberlain, P.
  2019; 124: 563-582
- **Atmospheric flow deflection in the late Cenozoic Sierra Nevada** *Earth and Planetary Science Letters*

Mix, H., Caves Rugenstein, J., Winnick, M., S, R., Kukla, T., Rich, A., Chamberlain, P.
2019; 518: 76-85

- **Sedimentary and isotopic data reveal Paleogene topographic and climatic evolution of the Northern Rocky Mountains** *Geological Society of America Bulletin*
  Schwartz, T., Methner, K., Mulch, A., Graham, S., Chamberlain, P.
  2019; 131: 1203-1223
- **The potential for metamorphic thermal pulses to develop during compaction-driven fluid flow** *Geochemistry, Geophysics, and Geosystems*
  Meng, T., Ague, J. J., Chu, X., Baxter, E. F., Sullivan, N., Chamberlain, C. P., Rumble, D.
  2018; 19: 232-256
- **The evolution of hydroclimate in Asia over the Cenozoic: A stable-isotope perspective** *Earth Science Reviews,*
  Caves, J., Chamberlain, P.
  2018; 185: 129-156
- **Lacustrine biogeochemical cycling and Ocean Anoxic Event 3 in the Turonian-Coniacian Qingshankou Formation Songliao Basin of northeast China.** *Earth and Planetary Science Letters*
  Jones, M., Ibarra, D., Gao, Y., Sageman , B., Selby, D., Chamberlain, P., Graham, S.
  2018; 484: 41-52
- **Testing for rapid thermal pulses in metamorphism by modeling garnet growth-diffusion-resorption profiles in a UHT metamorphic "hot spot", New Hampshire** *Journal of Petrology,*
  Chu, X., Ague, J., Tian, M., Baxter, E., Rumble, D., Chamberlain, P.
  2018; =59: 1939-1964
- **Dual wet-states in western North America during the Plio-Pleistocene** *Geology,*
  Ibarra, D., Oster, J., Winnick, M., Caves, J., Chamberlain, P.
  2018; 46: 355-358
- **Late Miocene uplift of the Tian Shan and Altai and reorganization of Central Asia Climate** *GSA Today*
  Caves, J., Bayshashov, B., Zhamagara, A., Ritch, A., Ibarra, D., Sjostrom, D., Mix, H., Winnick, N., Chamberlain, P.
  2017; 26: 20-26
- **Concentration-discharge patterns of weathering products from global rivers** *Acta Geochimica*
  Ibarra, D., Moon, S., Caves, J., Chamberlain, P., Maher, K.
  2017; 36: 405-409
- **Stable isotope paleoaltimetry: Paleotopography as a key element in the evolution of landscapes and life** *Mountains, climate and biodiversity*
  Mulch, A., Chamberlain, P.
  Wiley.2017
- **A hot and high Eocene Sierra Nevada** *Geological Society of America Bulletin*
  Mix, H., Ibarra, D., Mulch, A., Graham, S., Chamberlain, C. P.
  2016; 16: 531-542
- **The Neogene de-greening of Central Asia. Geology** *Geology*
  Caves, J., Moragne, D., Ibarra, D., Bayshashov, B., Gao, Y., Jones, M., Zhamangara, A., Arzhannikova, A., Chamberlain, P.
  2016; 44: 887-890
- **Differential weathering of basaltic and granitic catchments from concentration-discharge relationships** *Geochimica Cosmochimica Acta*
  Ibarra, D., Caves, J., Moon, S., Thomas, D., Hartman, J., Chamberlain, P.
  2016; 190: 265-293
- **Eo-Oligocene proto-Cascades topography revealed by clumped (Δ47) and oxygen isotope (δ18O) geochemistry (Chumstick Basin, WA, USA)** *Tectonics*
  Methner, K., Feibig, J., Umhoefer, , P., Chamberlain, P., Mulch, A.
  2016; 35: 546-564
- **Rapid Middle Eocene temperature change in western North America** *Earth and Planetary Science Letters*
  Methner, K., Mulch, A., Fiebig, H., Wacker, A., Graham, S., Chamberlain, C. P.

2016; 450: 132-139

- **Rapid change in western North American high-elevation rainfall patterns during the Mid Eocene Climatic Optimum (MECO)** *American Journal of Science*
  Mulch, A., Chamberlain, C. P., Cosca, M., Teyssier, C., Methner, K., Graham, S. A.
  2015; 315: 317-336
- **A mechanistic analysis of Early Eocene latitudinal gradients of isotopes in precipitation** *Geophysical Research Letters*
  Winnick, M., Caves, J., Chamberlain, P.
  2015; 42
- **Eocene and Miocene extension, meteoric fluid infiltration, and core complex formation in the Great Basin (Raft River Mountians, Utah)** *Tectonics*
  Methner, K., Mulch, A., Teyssier, C., Wells, M., Cosca, M., Gottardi, R., Geblin, A., Chamberlain, C. P.
  2015; 34: 680-693
- **Mid-latitude terrestrial climate of East Asia linked to global climate in the Late Cretaceous** *Geology*
  Gao, Y., Ibarra, D., Wang, C., Caves, J., Chamberlain, C. P., Graham, S., Wu, H.
  2015; 43: 287-290
- **Role of the westerlies in Central Asia over the Cenozoic** *Earth and Planetary Science Letters*
  Caves, J. K., Winnick, M. J., Graham, S., Sjostrom, D., Mulch, A., Chamberlain, C. P.
  2015; 428: 33-43
- **Quantifying closed-basin lake temperature and hydrology by inversion of oxygen isotope and trace element paleoclimate records** *American Journal of Science*
  Ibarra, D., Chamberlain, C. P.
  2015; 315: 781-808
- **Paleogene surface uplift and its impact on terrestrial paleoenvironments and mammalian communities in western North America** *Paleobios*
  Eronen, J. T., Janis, C. M., Chamberlain, C. P., Mulch, A.
  2015; 282
- **New estimates of silicate weathering rates and uncertainties in global rivers** *Geochimica Cosmochimica Acta*
  Moon, S., Chamberlain, C. P., Hilley, G. E.
  2014; 134: 257-274
- **Stable isotopic records of hydrologic change and paleotemperature from smectite in Cenozoic Western North America** *Geochimica Cosmochimica Acta*
  Mix, H. T., Chamberlain, C. P.
  2014; 141: 532-546
- **Quantifying the isotopic "Continental Effect"** *Earth and Planetary Science Letters*
  Winnick, M., Chamberlain, P., Caves, J., Welker, J.
  2014; 406: 123-133
- **Aridification of Central Asia and uplift of the Altai and Hangay Mountains: Stable Isotope Evidence** *American Journal of Science*
  Caves, J. K., Sjostrom, D. J., Mix, H. T., Winnick, M. J., Chamberlain, C. P.
  2014; 314: 1171-1201
- **Heavy metals in produce from urban farms in the San Francisco Bay area.** *Food Additives and Contaminants – Part B*
  Kohrmann, H., Chamberlain, C. P.
  2014
- **The role of Neogene grassland expansion and aridification on the isotopic composition of continental precipitation** *Global Biogeochemical Cycles*
  Chamberlain, C. P., Winnick, M., Mix, H. T., Chamberlain, S. D., Maher, K.
  2014
- **Hydrologic regulation of chemical weathering and the geologic carbon cycle** *Science*
  Maher, K., Chamberlain, C. P.

2014; 343: 1502-1504

- **Evolution of Early Cenozoic topography, climate and stable isotopes of precipitation in the North America Cordillera** *American Journal of Science*
  Feng, R., Poulson, C. J., Werner, M., Chamberlain, C. P., Mix, H. T., Mulch, A.
  2013; 313: 613-648
- **Possible regional tectonic controls on mammalian evolution in western North America** *Palaeogeography, Palaeoclimatology, Palaeoecology*
  Kent-Corson, M. L., Barnosky, A. D., Mulch, A., Carrasco, M. A., Chamberlain, C. P.
  2013; 387: 17-26
- **Stable isotopic evidence of background El-Nino circulation in Pliocene Western United States** *Climates of the Past*
  Winnick, M., Welker, J. M., Chamberlain, C. P.
  2013; 9: 903-912
- **Stable isotopic evidence for climate and basin evolution of the Late Cretaceous Songliao Basin, China** *Palaeogeography, Palaeoclimatology, Palaeoecology*
  Chamberlain, C. P., Wan, X., Graham, S. A., Carroll, A. R., Doebbert, A. C., Sageman, B., Blisniuk, P., Kent-Corson, M., Wang, Z., et al
  2013; 385: 106-124
- **Grassland expansion as an instrument of hydrologic change in Neogene Western North America** *Earth and Planetary Science Letters*
  Mix, H. T., Winnick, M. J., Mulch, .., Chamberlain, C. P.
  2013; 377-378: 73-83
- **Hydrothermal alteration of the Ediacaran Doushantuo Formation in the Yangtze Gorges area (South China)** *Geochimica Cosmochimica Acta*
  Derkowski, A., Bristow, T. F., Wampler, J. M., Srodon, J., Marynowski, L., Elliott, W. C., Chamberlain, C. P.
  2013; 107: 279-298
- **Discovery of an ultrahigh-temperature metamorphic blister in the Southern Acadian Orogen, USA** *Geology*
  Ague, J. J., Eckert, J. O., Xu, C., Baxter, E. F., Chamberlain, C. P.
  2013
- **Discovery of an ultrahigh-temperature metamorphic blister in the Southern Acadian Orogen, USA** *Geology*
  Ague, J. J., Eckert, J. O., Xu, C., Baxter, E. F., Chamberlain, C. P.
  2013
- **Early Cenozoic topography, morphology, and tectonics of the northern Sierra Nevada and western Basin and Range** *GEOSPHERE*
  Cassel, E. J., Graham, S. A., Chamberlain, C. P., Henry, C. D.
  2012; 8 (2): 229-249
- **Coupled basin-detachment systems as paleoaltimetry archives of the western North American Cordillera** *Earth and Planetary Science Letters*
  Gebelin, A., Mulch, A., Teyssier, C., Chamberlain, C. P.
  2012; 335-336: 36-47
- **Cenozoic climatic and topographic evolution of the Western North America Cordillera** *American Journal of Science*
  Chamberlain, C. P., Mix, H. T., Mulch, A., Hren, H. T., Kent-Corson, M. L., Davis, S. J., Horton, T. W., Graham, S. A.
  2012; 312: 213-262
- **Climatic control of denudation in the glaciated landscape of the Washington Cascades** *Nature Geoscience*
  Moon, S., Chamberlain, C. P., Blisniuk, K., Levine, N., Rood, D. H., Hilley, G.
  2011; 4: 469-473
- **Cenozoic migration of topography in the North American Cordillera** *GEOLOGY*
  Mix, H. T., Mulch, A., Kent-Corson, M. L., Chamberlain, C. P.
  2011; 39 (1): 87-90
- **Diachronous isotopic and sedimentary responses to topographic changes as indicators of mid-Eocene hydrologic reorganization in western United States** *Basin Research*
  Kent-Corson, M. l., Mulch, A., Graham, S. A., Carroll, A. R., Ritts, B. D., Chamberlain, C. P.
  2010: 1365-2117

- **Stable isotope records of late Miocene precipitation and elevational patterns in the central Andean foreland** *Earth and Planetary Science Letters*
  Mulch, A., Uba, C. E., Strecker, M., Schoenberg, R., Chamberlain, C. P.
  2010; 290: 173-182
- **Competition between erosion and reaction kinetics in controlling silicate weathering rates** *Earth and Planetary Science Letters*
  Hilley, G. E., Chamberlain, C. P., Moon, S. G., Willet, S. D.
  2010; 293: 191-199
- **δ18O and δD of streamwaters across the Himalaya and Tibetan Plateau: Implications for moisture sources and paleoelevation reconstructions** *Earth and Planetary Science Letters*
  Hren, M. T., Bookhagen, B., Blisniuk, P., Booth, A., Chamberlain, C. P.
  2010; 288: 20-32
- **Geomorphic controls on lacustrine isotopic compositions: Evidence from the Laney Member, Green River Formation (Wyoming)** *Geological Society of America Bulletin*
  Doebbert, A., Carroll, A., Mulch, A., Chetel, L., Chamberlain, C. P.
  2010; 122: 236-252
- **Pedogenic carbonate carbon isotopic constraints on paleoprecipitation: Evolution of desert in the Pacific Northwest, USA, in response to topographic development of the Cascade Range** *Chemical Geology*
  Takeuchi, A., Hren, M. T., Smith, S. V., Chamberlain, C. P., Larson, P. B.
  2010; 277: 323-335
- **SYNOROGENIC EVOLUTION OF LARGE-SCALE DRAINAGE PATTERNS: ISOTOPE PALEOHYDROLOGY OF SEQUENTIAL LARAMIDE BASINS** *AMERICAN JOURNAL OF SCIENCE*
  Davis, S. J., Mix, H. T., Wiegand, B. A., Carroll, A. R., Chamberlain, C. P.
  2009; 309 (7): 549-602
- **Cenozoic tectonic and topographic evolution of the northern Sierra Nevada, California, through stable isotope paleoaltimetry in volcanic glass** *GEOLOGY*
  Cassel, E. J., Graham, S. A., Chamberlain, C. P.
  2009; 37 (6): 547-550
- **Stable isotopic constraints on the tectonic, topographic, and climatic evolution of the northern Tibetan Plateau** *Earth and Planetary Science Letters*
  Kent-Corson, M. L., Ritts, B. D., Zhuang, G., Bovet, P. M., Graham, S. A., Chamberlain, C. P.
  2009; 282: 158-166
- **Detecting changes in habitat-scale bee foraging in a tropical fragmented landscape using stable isotopes** *Forest Ecology and Management*
  Brosi, B. J., Daily, G. C., Chamberlain, C. P., Mills, M.
  2009; 258: 1846–1855
- **Paleogene landscape evolution of the Laramide foreland:Stable isotopic evidence of topographic and hydrologic development in the central North American Cordillera** *Geological Society of America Bulletin*
  Davis, S. J., Mulch, A., Carroll, A., Chamberlain, C. P.
  2009; 121: 100-116
- **Stable isotope foodweb analysis and mercury biomagnefication in polar bears (Ursus maritimus)** *Polar Research*
  Horton, T. W., Blum, J. D., Xie, Z., Hren, M., Chamberlain, C. P.
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- **Constraints on the metamorphic evolution of the eastern Himalayan syntaxis from geochronologic and petrologic studies of Namche Barwa** *Geological Society of America Bulletin*
  Booth, A. L., Chamberlain, C. P., Kidd, W. F., Zeitler, P. K.
  2009; 121: 385-407
- **Oxygen and hydrogen isotope evidence for a temperate climate 3.42 billion years ago** *Nature*
  Hren, M. T., Tice, M., Chamberlain, C. P.
  2009; 462: 205-208

- **Geochemical traces of CO2-rich fluid flow along normal faults in central Italy** *GEOPHYSICAL JOURNAL INTERNATIONAL*
  Agosta, F., Mulch, A., Chamberlain, P., Aydin, A.
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- **A Miocene to Pleistocene climate and elevation record of the Sierra Nevada** *Proceedings of the National Academy of Science*
  Mulch, A., Sarna-Wojcicki, A. M., Perkins, M. E., Chamberlain, C. P.
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- **Capture of high-altitude precipitation by a low-altitude Eocene lake, western U. S., Wyoming** *Geology*
  Carroll, A. R., Doebbert, A., Booth, A. L., Chamberlain, C. P., Rhodes-Carson, M., Smith, M., Johnson, C. M., Beard, B. L.
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- **The effect of drainage reorganization on paleoaltimetry studies: An example from the Paleogene Laramide foreland** *Earth and Planetary Science Letters*
  Davis, S. J., Wiegland, B. A., Carroll, A. R., Chamberlain, C. P.
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- **The relationship between tectonic uplift and chemical weathering rates in the Washington cascades: Field measurements and model predictions** *AMERICAN JOURNAL OF SCIENCE*
  Hren, M. T., Hilley, G. E., Chamberlain, G. P.
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- **Uplift, erosion and phosphorous limitation in terrestrial ecoystems** *Ecosystems*
  Porder, S., Vitousek, P. M., Chadwick, O. A., Chamberlain, C. P., Hilley, G. E.
  2007; 10: 158-170
- **Stable isotope paleoaltimetry in orogenic belts - The silicate record in surface and crustal geological archives** *Reviews in Mineralogy and Geochemistry*
  Mulch, A., Chamberlain, C. P.
  2007; 66: 89-118
- **Stable isotope paleoaltimetry of Eocene Core Complexes, northern North America Cordillera** *Tectonics*
  Mulch, A., Teyssier, C., Cosca, M. A., Chamberlain, C. P.
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- **Major ion chemistry of the Yarlung Tsangpo/Brahmaputra river: Chemical weathering, erosion, and CO2 consumption in the southern Tibet Plateau and Eastern Syntaxis of the Himalaya** *Geochimica Cosmochmica Acta*
  Hren, M. T., Chamberlain, C. P., Hilley, G. E., Bookhagen, B.
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- **Historic decline in primary productivity in western Gulf of Alaska and eastern Bering Sea: isotopic analysis of northern fur seal teeth** *Marine Ecology Progress Series*
  Newsome, S. D., Etnier, M. A., Kurle, C. M., Waldbauer, J. R., Chamberlain, C. P., Koch, P. L.
  2007; 332: 211-224
- **Reconstructing grassland vegetation and paleotemperatures using carbon isotope ratios of bison tooth enamel** *GEOLOGY*
  Hoppe, K. A., Paytan, A., Chamberlain, P.
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- **Hydrogen isotopes in Eocene river gravels and paleoelevation of the Sierra Nevada** *SCIENCE*
  Mulch, A., Graham, S. A., Chamberlain, C. P.
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- **Rising mountain ranges** *SCIENCE*
  Poage, M. A., Chamberlain, C. P.
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  Sjostrom, D. J., Bren, M. T., Horton, T. W., Waldbauer, J. R., Chamberlain, C. P.
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