Clara L. Blättler

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EDUCATION

2012	DPhil: University of Oxford, Earth Sciences
2008	AB: Harvard College, Earth and Planetary Sciences

PROFESSIONAL APPOINTMENTS

2012–	Postdoctoral fellow/associate, Princeton University**,** Department of Geosciences
2015–	Simons Foundation Postdoctoral Fellow
2012–2014	Agouron Institute Postdoctoral Fellow

HONORS AND AWARDS

2015	Simons Foundation Fellowship, Collaboration on the Origins of Life
2012	Agouron Institute Geobiology Fellowship
2008	Rhodes Scholarship (Massachusetts and University College)
2008	Phi Beta Kappa (Harvard College)
2005, 2006	John Harvard Scholarship
2005	Detur Book Prize

RESEARCH INTERESTS

- Geological carbon cycle and climate history
- Geochemistry and isotope geochemistry of carbonates and evaporites
- Chemical composition of seawater
- Early Earth environments and habitability
- Analytical tools: metal isotope analysis (MC-ICP-MS), trace element analysis (ICP-MS, ICP-OES), X-ray diffraction, ion chromatography, geochemical numerical/box models

PUBLICATIONS

Manuscripts in preparation:

---- **Blättler, C.L.**, Higgins, J.A. Testing Urey's carbonate-silicate cycle using the calcium isotopic composition of sedimentary carbonates on billion-year timescales.

---- **Blättler, C.L.**, Bergmann, K.D., Higgins, J.A. An independent constraint on marine sulfate levels at the Ediacaran–Cambrian transition.

Submitted articles:

---- Prave, A.R., Lepland, A., Kirsimäe, K., Rychanchik, D.V., Romashkin, A.E., Medvedev, P.V., Zerkle, A.L., **Blättler, C.L.**, Üpraus, K., Kreitsmann, T., Claire, M.W. A two-billion-year-old marine evaporite succession.

---- Higgins, J.A., **Blättler, C.L.**, Lundstrom, E.A., Santiago-Ramos, D.P, Akhtar, A.A., Ahm, A.S.C., Bialik, O., Holmden, C., Bradbury, H.J., Murray, S.T., and Swart, P.K. Mineralogy, early marine diagenesis, and the chemistry of shallow water carbonate sediments.

Peer-reviewed articles:

2017 **Blättler, C.L.**, Kump, L.R., Fischer, W.W., Paris, G., Kasbohm, J.J., Higgins, J.A. Constraints on ocean carbonate chemistry an d pCO_2 in the Archaean and Palaeoproterozoic. *Nature Geoscience* 10, 41–45. doi: 10.1038/ngeo2844.

2016 Betzler, C., Eberli, G.P., Kroon, D., Wright, J.D., Swart, P.K., Nath, B.N., Alvarez-Zarikian, C.A., Alonso-García, M., Bialik, O.M., **Blättler, C.L.**, Guo, J.A., Haffen, S., Horozal, S., Inoue, M., Jovane, L., Lanci, L., Laya, J.C., Ling Hui Mee, A., Lüdmann, T., Nakakuni, M., Niino, K., Petruny, L.M., Pratiwi, S.D., Reijmer, J.J.G., Reolid, J., Slagle, A.L., Sloss, C.R., Su, X., Yao, Z., Young, J.R. The abrupt onset of the modern South Asian Monsoon winds. *Scientific Reports* 6, 29838. doi: 10.1038/srep29838.

2016 Gothmann, A.M., Bender, M.L., **Blättler, C.L.**, Swart, P.K., Giri, S.J., Adkins, J.F., Stolarski, J., Higgins, J.A. Calcium isotopes in scleractinian fossil corals since the Mesozoic: Implications for vital effects and biomineralization through time. *Earth and Planetary Science Letters* 444, 205–214. doi: 10.1016/j.epsl.2016.03.012.

2016 Owen, R.A., Day, C.C., Hu, C.-Y., Liu, Y.-H., Pointing, M.D., **Blättler, C.L.**, Henderson, G.M. Calcium isotopes in caves as a proxy for aridity: Modern calibration and application to the 8.2 kyr event. *Earth and Planetary Science Letters* 443, 129–138. doi: 10.1016/j.epsl.2016.03.027.

2015 **Blättler, C.L.**, Miller, N.R., Higgins, J.A. Mg and Ca isotope signatures of authigenic dolomite in siliceous deep-sea sediments. *Earth and Planetary Science Letters* 419, 32-42. doi:10.1016/j.epsl.2015.03.006.

2014 **Blättler, C.L.**, Higgins, J.A. Calcium isotopes in evaporites record variation in Phanerozoic seawater SO_4 and Ca. *Geology* 42, 711–714. doi:10.1130/G35721.1.

2014 **Blättler, C.L.**, Stanley, S.M., Henderson, G.M., Jenkyns, H.C. Identifying vital effects in *Halimeda* algae with Ca isotopes. *Biogeosciences* 11, 7202–7217. doi:10.5194/bg-11-7202-2014.

2012 **Blättler, C.L.**, Henderson, G.M., Jenkyns, H.C. Explaining the Phanerozoic Ca isotope history of seawater. *Geology* 40, 843–846. doi:10.1130/G33191.1.

2011 **Blättler, C.L.**, Jenkyns, H.C., Reynard, L.M., Henderson, G.M. Significant increases in global weathering during Oceanic Anoxic Events 1a and 2 indicated by calcium isotopes. *Earth and Planetary Science Letters* 309, 77–88. doi:10.1016/j.epsl.2011.06.029.

INVITED PRESENTATIONS

2017 Cornell University, Department of Earth and Atmospheric Sciences, Mar. 15

2017 University of California, Santa Cruz, Department of Earth and Planetary Sciences, Feb. 21

2017 Washington University in St. Louis, Department of Earth and Planetary Sciences, Jan. 26

2017 USGS Rocky Mountain Science Seminar, Jan. 24

2016 Johns Hopkins University, Department of Earth and Planetary Sciences, Nov. 15

2016 Brown University, Department of Earth, Environmental and Planetary Sciences, Sept 29

2016 Texas A&M University, Department of Geology and Geophysics, Apr. 8

2016 University of California, Berkeley, Department of Earth and Planetary Science, Mar. 10

2016 Lamont-Doherty Earth Observatory, Geochemistry Seminar, Feb. 17

2016 Yale University, Department of Geology & Geophysics, Feb. 11

2015 MIT, Department of Earth, Atmospheric, and Planetary Sciences, COG3 Seminar, Sept. 18

2015 WHOI, Department of Marine Chemistry & Geochemistry, Mar. 17

2014 AGU Fall Meeting, invited oral presentation, Dec. 19
2014 Harvard University, Department of Earth and Planetary Sciences, Geobiology/ Paleobiology Seminar, Nov. 13
2014 Rutgers University, Department of Earth and Planetary Sciences, Oct. 8
2012 Binghamton University, Department of Geological Sciences and Environmental Studies, Nov. 30

TEACHING EXPERIENCE

Teaching assistant / demonstrator: (University of Oxford, Department of Earth Sciences)

2011–2012 St Edmund Hall tutorials: Planet Earth–Climate change–Alternative energy
2011, 2012 Mathematical problem-solving for Earth sciences
2009 Radiogenic isotope geochemistry / stable isotope geochemistry
2008 Atmosphere & hydrosphere

Field trip assistant: (University of Oxford, Department of Earth Sciences)

2010, 2011 Isle of Arran field course
2011 Pembrokeshire field course
2009–2011 Dorset field course

Supervised projects:

2011 M.D. Pointing, MESc: University of Oxford, Earth Sciences (co-supervised with G.M. Henderson and C.C. Day)

FIELD AND SEAGOING EXPERIENCE

2015 IODP Leg 359, Maldives Monsoon (JOIDES Resolution): inorganic geochemist
Chief Scientists: C. Betzler, G.P. Eberli
2014 Agouron Advanced Geobiology Field Course
Course leaders: A.H. Knoll, J.P. Grotzinger
2013 Site Survey Cruise RR1313 (R/V Roger Revelle)
Chief Scientists: Y. Rosenthal, G.S. Mountain
2011 Cretaceous Chalk, England, with X.Y. Zheng and H.C. Jenkyns
2010 Assistant to K. Amor: Younger Dryas sediments, various locations in US/Canada
2007 Assistant to P.F. Hoffman and S.B. Pruss: Neoproterozoic Otavi Group, Namibia

OUTREACH AND SERVICE

2015–	Women In STEM Leadership Council, Princeton University
2013–	PWiGS (Princeton Women in Geosciences Initiative) mentor and leader
2012	UNIQ summer school tutorial leader, University of Oxford
2008–2012	Student representative to the Graduate Student Forum, University of Oxford

AFFILIATIONS

Reviewer for:

Biogeosciences
Chemical Geology
Earth and Planetary Science Letters
Geobiology
Geochimica et Cosmochimica Acta
The Geological Society of America Bulletin
Geology
JGR-Biogeosciences
Nature Communications
NERC
NSF
Sedimentology

Memberships:

American Geophysical Union (Paleoceanography & Paleoclimatology)
The Geochemical Society
Earth Science Women's Network