Clara L. Blättler

University of Chicago
Dept. of the Geophysical Sciences
5734 S. Ellis Ave., Chicago, IL 60637

cblattler@uchicago.edu
ORCID: 0000-0003-4843-3625
https://geosci.uchicago.edu/people/clara-blaettler/

EDUCATION

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

PROFESSIONAL APPOINTMENTS

2018–	Assistant Professor, University of Chicago, Dept. of the Geophysical Sciences
2012–2018	Postdoctoral research scientist, Princeton University**,** Dept. of Geosciences
2015–2018	Simons Foundation Postdoctoral Fellow
2012–2014	Agouron Institute Postdoctoral Fellow

HONORS AND AWARDS

2019	Sloan Research Fellowship (Ocean Sciences)
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

PUBLICATIONS

——	Waldeck, A.R., Olson, H.C., Yao, W., **Blättler, C.**, Paytan, A., Hodell, D.A., Johnston, D.T. Calibrating the triple oxygen isotope composition of evaporite minerals as a proxy for marine sulfate. In review at *Earth and Planetary Science Letters*.
——	Hoffman, P.F., Halverson, G.P., Schrag, D.P., Higgins, J.A., Domack, E.W., Macdonald, F.A., Pruss, S.B., **Blättler, C.L.**, Crockford, P.W., Hodgin, E.B., Bellefroid, E.J., Johnson, B.W., Hodgskiss, M.S.W., Lamothe, K.G., LoBianco, S.J.C., Busch, J.F., Howes, B.J., Greenman, J.W., Nelson, L.L. Snowballs in Africa: sectioning a long-lived Neoproterozoic carbonate platform and its bathyal foreslope (NW Namibia). Accepted (in press) at *Earth-Science Reviews*.
2021	**Blättler, C.L.**, Hong, W.L., Kirsimäe, K., Higgins, J.A., Lepland, A. Small calcium isotope fractionation at slow precipitation rates in methane seep authigenic carbonates, 2021. *Geochimica et Cosmochimica Acta* 298, 227–239. doi:10.1016/j.gca.2021.01.001.

Crockford, P.W., Kunzmann, M., **Blättler, C.L.**, Kalderon-Asael, B., Murphy, J.G., Ahm, A.-S., Sharoni, S., Halverson, G.P., Planavsky, N.J., Halevy, I., Higgins, J.A., 2021. Reconstructing Neoproterozoic seawater chemistry from early diagenetic dolomite. *Geology* 49, 442–446. doi:10.1130/G48213.1.

2020 Ingalls, M., **Blättler, C.L.**, Higgins, J.A., Magyar, J.S., Eiler, J.M., Fischer, W.W., 2020. P/Ca in carbonates as a proxy for alkalinity and phosphate levels. *Geophysical Research Letters* 47, e2020GL088804. doi:10.1029/2020GL088804.

Thiagarajan, N., Crémière, A., **Blättler, C.**, Lepland, A., Kirsimäe, K., Higgins, J., Brunstad, H., Eiler, J., 2020. Stable and clumped isotope characterization of authigenic carbonates in methane cold seep environments. *Geochimica et Cosmochimica Acta* 279, 204–219. doi:10.1016/j.gca.2020.03.015.

Blättler, C.L., Bergmann, K.D., Kah, L.C., Gómez-Pérez, I., Higgins, J.A., 2020. Constraints on Meso- to Neoproterozoic seawater from ancient evaporite deposits. *Earth and Planetary Science Letters* 532, 115951. doi:10.1016/j.epsl.2019.115951.

2019 Lanci, L., Zanella, E., Jovane, L, Galeotti, S., Alonso-García, M., Alvarez-Zarikian, C.A., Bejugam, N.N., Betzler, C., Bialik, O.M., **Blättler, C.L.**, Eberli, G.P., Guo, J.A., Haffen, S., Horozal, S., Inoue, M., Kroon, D., 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., Swart, P.K., Wright, J.D., Yao, Z., Young, J.R., 2019. Magnetic properties of early Pliocene sediments from IODP Site U1467 (Maldives platform) reveal changes in the monsoon system. *Palaeogeography, Palaeoclimatology, Palaeoecology* 533, 109283. doi:10.1016/j.palaeo.2019.109283.

Related dataset: Lanci et al., Dataset of characteristic remanent magnetization and magnetic properties of early Pliocene sediments from IODP Site U1467 (Maldives platform). *Data in brief* 27, 104666, 2019. doi:10.1016/j.dib.2019.104666.

Swart, P.K., **Blättler, C.L.**, Nakakuni, M., Mackenzie, G.J., Betzler, C., Eberli, G.P., Reolid, J., Alonso-García, M., Slagle, A.L., Wright, J.D., Kroon, D., Reijmer, J.J.G., Hui Mee, A.L., Young, J.R., Alvarez-Zarikian, C.A., Bialik, O.M., Guo, J.A., Haffen, S., Horozal, S., Inoue, M., Jovane, L., Lanci, L., Laya, J.C., Lüdmann, T., Nagender Nath, B., Niino, K., Petruny, L.M., Pratiwi, S.D., Su, X., Sloss, C.R., Yao, Z., 2019. Cyclic anoxia and organic rich carbonate sediments within a drowned carbonate platform linked to Antarctic ice volume changes: Late Oligocene–early Miocene Maldives. *Earth and Planetary Science Letters* 521, 1–13. doi:10.1016/j.epsl.2019.05.019.

Blättler, C.L., Higgins, J.A., Swart, P.K., 2019. Advected glacial seawater preserved in the subsurface of the Maldives carbonate edifice. *Geochimica et Cosmochimica Acta* 257, 80–95. doi:10.1016/j.gca.2019.04.030.

2018 Kunkelova, T., Jung, S.J.A., de Leau, E.S., Odling, N., Thomas, A.L., Betzler, C., Eberli, G.P., Alvarez-Zarikian, C.A., Alonso-García, M., Bialik, O.M., **Blättler,**

C.L., Guo, J.A., Haffen, S., Horozal, S., Ling Hui Mee, A., Inoue, M., Jovane, L., Lanci, L., Laya, J.C., Lüdmann, T., Bejugam, N.N., Nakakuni, M., Niino, K., Petruny, L.M., Pratiwi, S.D., Reijmer, J.J.G., Reolid, J., Slagle, A.L., Sloss, C.R., Su, X., Swart, P.K., Wright, J.D., Yao, Z., Young, J.R., Lindhorst, S., Stainbank, S., Rueggeberg, A., Spezzaferri, S., Carrasqueira, I., Hu, S., Kroon, D., 2018. A two million year record of low-latitude aridity linked to continental weathering from the Maldives. *Progress in Earth and Planetary Science* 5, 20 pp. doi:10.1186/s40645-018-0238-x.

Pruss, S.B., **Blättler, C.L.**, Macdonald, F.A., Higgins, J.A., 2018. Calcium isotope evidence that the earliest metazoan biomineralizers formed aragonite shells. *Geology* 46, 763–766. doi:10.1130/G45275.1.

Lüdmann, T., Betzler, C., Eberli, G.P., Reolid, J., Reijmer, J.J.G., Sloss, C.R., Bialik, O.M., Alvarez-Zarikian, C.A., Alonso-García, M., **Blättler, C.L.**, Guo, J.A., Haffen, S., Horozal, S., Inoue, M., Jovane, L., Kroon, D., Lanci, L., Laya, J.C., Ling Hui Mee, A., Nakakuni, M., Nath, B.N., Niino, K., Petruny, L.M., Pratiwi, S.D., Slagle, A.L., Su, X., Swart, P.K., Wright, J.D., Yao, Z., Young, J.R., 2018. Carbonate delta drift: A new sediment drift type. *Marine Geology* 401, 98–111. doi:10.1016/j.margeo.2018.04.011.

Blättler, C.L., Claire, M.W., Prave, A.R., Kirsimäe, K., Higgins, J.A., Medvedev, P.V., Romashkin, A.E., Rychanchik, D.V., Zerkle, A.L., Paiste, K., Kreitsmann, T., Millar, I.L., Hayles, J.A., Bao, H., Turchyn, A.V., Warke, M.R., Lepland, A., 2018. Two-billion-year-old evaporites capture Earth's great oxidation. *Science* 360, 320–323. doi:10.1126/science.aar2687.

Ahm, A.S.C., Bjerrum, C.J., **Blättler, C.L.**, Swart, P.K., Higgins, J.A., 2018. Quantifying early marine diagenesis in shallow-water carbonate sediments. *Geochimica et Cosmochimica Acta* 236, 140–159. doi:10.1016/j.gca.2018.02.042.

Betzler, C., Eberli, G.P., Lüdmann, T., Reolid, J., Kroon, D., Reijmer, J.J.G., Swart, P.K., Wright, J., Young, J.R., Alvarez-Zarikian, C., 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., Hui Mee, A.L., Nakakuni, M., Nath, B.N., Niino, K., Petruny, L.M., Pratiwi, S.D., Slagle, A.L., Sloss, C.R., Su, X., Yao, Z., 2018. Refinement of Miocene sea level and monsoon events from the sedimentary archive of the Maldives (Indian Ocean). *Progress in Earth and Planetary Science* 5, 18 pp. doi:10.1186/s40645-018-0165-x.

Higgins, J.A., **Blättler, C.L.**, Lundstrom, E.A., Santiago-Ramos, D.P., Akhtar, A.A., Crüger Ahm, A.-S., Bialik, O., Holmden, C., Bradbury, H., Murray, S.T., Swart, P.K., 2018. Mineralogy, early marine diagenesis, and the chemistry of shallow-water carbonate sediments. *Geochimica et Cosmochimica Acta* 220, 512–534. doi:10.1016/j.gca.2017.09.046.

2017 Betzler, C., Eberli, G.P., Alvarez Zarikian, C.A., and the **Expedition 359 Scientists, Maldives Monsoon and Sea Level**, 2017. Proceedings of the

International Ocean Discovery Program, 359: College Station, TX. doi:10.14379/iodp.proc.359.2017.

Blättler, C.L., Higgins, J.A., 2017. Testing Urey's carbonate–silicate cycle using the calcium isotopic composition of sedimentary carbonates. *Earth and Planetary Science Letters* 479, 241–251. doi:10.1016/j.epsl.2017.09.033.

Blättler, C.L., Kump, L.R., Fischer, W.W., Paris, G., Kasbohm, J.J., Higgins, J.A., 2017. Constraints on ocean carbonate chemistry and 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., 2016. The abrupt onset of the modern South Asian Monsoon winds. *Scientific Reports* 6, 29838. doi:10.1038/srep29838.

Gothmann, A.M., Bender, M.L., **Blättler, C.L.**, Swart, P.K., Giri, S.J., Adkins, J.F., Stolarski, J., Higgins, J.A., 2016. 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.

Owen, R.A., Day, C.C., Hu, C.-Y., Liu, Y.-H., Pointing, M.D., **Blättler, C.L.**, Henderson, G.M., 2016. 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., 2015. 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., 2014. Calcium isotopes in evaporites record variations in Phanerozoic seawater SO_4 and Ca. *Geology* 42, 711–714. doi:10.1130/G35721.1.

Blättler, C.L., Stanley, S.M., Henderson, G.M., Jenkyns, H.C., 2014. 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., 2012. 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., 2011. 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

2021	Goldschmidt conference, keynote and invited oral presentation
	Purdue University, Geology & Geophysics talk
2020	Seds Online webinar (remote)
	GSA Annual Meeting (virtual), keynote presentation
	University of Southern California, Department of Earth Sciences
2019	University of Washington, School of Oceanography/Quaternary Research Center
	University of California, Los Angeles, Department of Earth, Planetary, and Space Sciences
	Gordon Research Conference, Interior of the Earth
	Rice University, Department of Earth, Environmental & Planetary Sciences
	Northwestern University, Department of Earth and Planetary Sciences
2018	Goldschmidt conference, keynote and invited oral presentation
	University of Arizona, Department of Geosciences
	Stanford University, School of Earth, Energy & Environmental Sciences, Department of Geological Sciences
	University of Miami, Rosenstiel School of Marine & Atmospheric Science, Department of Marine Geosciences
	University of California, Santa Barbara, Department of Earth Science
	University of Wisconsin–Madison, Department of Geoscience
	University of Chicago, Department of the Geophysical Sciences
2017	AGU Fall Meeting, invited oral presentation
	Geobiology Society Conference
	Cornell University, Department of Earth and Atmospheric Sciences
	University of California, Santa Cruz, Department of Earth and Planetary Sciences
	Washington University in St. Louis, Department of Earth and Planetary Sciences
	USGS Rocky Mountain Science Seminar
2016	Johns Hopkins University, Department of Earth and Planetary Sciences
	Brown University, Department of Earth, Environmental and Planetary Sciences
	Texas A&M University, Department of Geology and Geophysics
	University of California, Berkeley, Department of Earth and Planetary Science
	Lamont-Doherty Earth Observatory, Geochemistry Seminar
	Yale University, Department of Geology & Geophysics
2015	MIT, Department of Earth, Atmospheric, and Planetary Sciences, COG3 Seminar
	WHOI, Department of Marine Chemistry & Geochemistry
2014	AGU Fall Meeting, invited oral presentation
	Harvard University, Department of Earth and Planetary Sciences, Geobiology/ Paleobiology Seminar
	Rutgers University, Department of Earth and Planetary Sciences

2012 Binghamton University, Department of Geological Sciences and Environmental Studies

TEACHING

2020, 2021 GEOS 23600/33600: Chemical Oceanography
2020 GEOS 30200: Introduction to Research in the Geophysical Sciences
2019 GEOS 33850: Low-Temperature Geochemistry
2019 GEOS 29002: Field Course in Modern and Ancient Environments
2008–2012 Teaching assistant/demonstrator, University of Oxford, Dept. of Earth Sciences:
Mathematical problem-solving for Earth sciences
Radiogenic isotope geochemistry, stable isotope geochemistry
Atmosphere & hydrosphere
2009–2011 Field trip assistant, University of Oxford, Dept. of Earth Sciences:
Isle of Arran field course
Pembrokeshire field course
Dorset field course

FIELD / SEAGOING EXPERIENCE

2019 Excursion to East Arm of the Great Slave Lake
2019 Field course, San Salvador Island, The Bahamas (co-instructor)
2015 IODP Expedition 359, Maldives (R/V JOIDES Resolution)
2014 Agouron Advanced Geobiology Field Course, west Texas and New Mexico
2013 Site Survey Cruise RR1313, western Pacific (R/V Roger Revelle)
2011 Sampling the Cretaceous Chalk, England
2010 Field assistant, sampling Younger Dryas sediments, US/Canada
2007 Field assistant, sampling Neoproterozoic Otavi Group, Namibia

OUTREACH AND SERVICE

Outreach and EDI activities:

2019– University of Chicago STEM Initiative, Office of Special Programs/College Prep
2016– Letters to a Pre-Scientist
2017 IODP-ECORD School of Rock, Brussels
2017 American Chemical Society National Chemistry Week, Princeton
2015–2018 Women In STEM Leadership Council, Princeton University
2013–2018 PWiGS (Princeton Women in Geosciences), Princeton University
2012 UNIQ Summer School, University of Oxford
2008–2012 Representative to the Graduate Student Forum, University of Oxford

Manuscripts reviewed for:

AGU Books
Astrobiology
Biogeosciences
Chemical Geology
Climate of the Past
Earth and Planetary Science Letters
Geobiology
Geochemistry, Geophysics, Geosystems
Geochimica et Cosmochimica Acta
The Geological Society of America Bulletin
Geology
Geophysical Research Letters
JGR-Biogeosciences
The Journal of Geology
Marine Chemistry
Nature Communications
Nature Geoscience
PNAS
Science Advances
Sedimentology

Proposals reviewed for:

ACS Petroleum Research Fund
NASA
NERC
NSF
US-Israel BSF

Memberships:

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