

# Theodore M. Present, Ph.D.

Senior Scientific Researcher  
California Institute of Technology  
Division of Geological & Planetary Sciences

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## EDUCATION & EXPERIENCE

<b>Senior Scientific Researcher</b> , California Institute of Technology, Pasadena, CA	2024 –
<b>Associate Scientific Researcher</b> , California Institute of Technology, Pasadena, CA	2021 – 2024
<b>Lecturer in Geology</b> , California Institute of Technology, Pasadena, CA	2022, 2023, 2025
<b>Postdoctoral Scholar Research Associate</b> , California Institute of Technology, Pasadena, CA Geology & Geochemistry, Division of Geological and Planetary Sciences	2018 – 2021
<b>Ph.D.</b> , California Institute of Technology, Pasadena, CA Geochemistry, Division of Geological and Planetary Sciences Dissertation title: “ <i>Controls on the sulfur isotopic composition of carbonate-associated sulfate</i> ”	2018
<b>M.S.</b> , California Institute of Technology, Pasadena, CA Geochemistry, Division of Geological and Planetary Sciences	2014
<b>B.S.</b> , Pennsylvania State University, University Park, PA Honors Geoscience major, Chemistry minor, Marine Science minor Schreyer Honors College, College of Earth and Mineral Sciences Honors Thesis title: “ <i>Single crystal gypsum dehydration in saturated brine conditions</i> ”	2011

## PUBLICATIONS

### First or Senior author:

(\* Undergraduate mentee; \*\* Doctoral mentee; † Co-first author; underline senior author role)

11. **Swindle, C. \*\***, Vasconcelos, P., Dimarco, Z., Cardarelli, E., Bhattacharjee, S., Farley, K., **Present, T. M.**, [submitted], **Elemental signatures of metamorphic, diagenetic, and pedogenic magnesites from central Queensland, Australia**. *Earth & Planetary Science Letters*.
10. **Swindle, C. \*\***, Vasconcelos, P., Cardarelli, E., Dalleska, N., Bhattacharjee, S., Dimarco, Z., Farley, K., **Present, T. M.**, [in review], **Determination of carbonate-specific trace element compositions in magnesite-bearing soils**. *Applied Geochemistry*.
9. **Present, T. M.**, Bergmann, K. D., Ryb, U., Eiler, J. M., Grotzinger, J. P., [in revision], **Primary seawater chemistry preserved in fabric-retentive early dolomite**.
8. Johnson, J. E., **Present, T. M. †**, Valentine, J. S., 2024, **Iron: life’s primeval transition metal**. *Proceedings of the National Academy of Sciences*, v. 121, no. 38, p. 1-10, doi: 10.1073/pnas.2318692121
7. **Present, T. M.**, Niespolo, E. M. Clarke, C. E., Behrensmeier, A. K., Leakey, L. N., Leakey, M. G., Mongle, C., Du Pleiss, A., Northrup, P., Tappero, R. V., Yang, D., Rasbury, E. T., Grine, F. E., 2024, **Nondestructive geochemical characterization of hominin fossil taphonomy and burial history**. *Quaternary Science Reviews*, v. 328, p. 108525, doi: 10.1016/j.quascirev.2024.108525
6. **Present, T. M.**, Bergmann, K. D., Ryb, U., Bryant, R. N., Grotzinger, J. P., 2023, **Early diagenesis in the Permian Reef**. In *Advances in the Understanding and Interpretation of Carbonates, SEPM Short Course Notes No. 57*, Playton, T. E. and Harris, P. M. (eds.), Claremore, Oklahoma: SEPM (Society for Sedimentary Geology), p. 157-160, doi: 10.2110/sepmscn.057.40
5. **Present, T. M.**, Gomes, M. L., Trower, E. J., Stein, N. T., Lingappa, U. F., Naviaux, J., Thorpe, M. T., Cantine, M. D., Fischer, W. W., Knoll, A. H., Grotzinger, J. P., 2021, **Non-lithifying microbial ecosystem dissolves peritidal lime sand**. *Nature Communications*, v. 12, no. 3037, p. 1-8, doi: 10.1038/s41467-021-23006-1
4. **Present, T. M.**, Adkins, J. F., Fischer, W. W., 2020, **Variability in sulfur isotope records of Phanerozoic seawater sulfate**. *Geophysical Research Letters*, v. 47, no. 18, e2020GL088766, doi: 10.1029/2020GL088766

3. **Present, T. M., Gutierrez, M.\***, Paris, G., Kerans, C., Grotzinger, J. P., Adkins, J. F., 2019, **Diagenetic controls on the isotopic composition of carbonate-associated sulfate in the Permian Capitan Reef complex, West Texas**. *Sedimentology*, v. 66, no. 7, p. 2605-2626, doi: 10.1111/sed.12615
2. **Present, T. M.**, Bergmann, K. D., Myers, C. E., Slotznick, S. P., Creveling, J. R., Zieg, J., Fischer W. W., Knoll, A. H., Grotzinger J. P., 2018, **Pyrite-walled tube structures in a Mesoproterozoic sediment-hosted metal sulfide deposit**. *Geological Society of America Bulletin*, v. 130, no. 3-4, p. 598-616, doi: 10.1130/B31504.1
1. **Present, T. M.**, Paris, G., Burke, A., Fischer, W. W., Adkins, J. F., 2015, **Large Carbonate Associated Sulfate isotopic variability between brachiopods, micrite, and other sedimentary components in Late Ordovician strata**. *Earth & Planetary Science Letters*, v. 432, p. 187-198, doi: 10.1016/j.epsl.2015.10.005

**Co-author:**

22. Zimmt, J. B., Bergmann, K. D., Finnegan, S., **Present, T. M.**, Jost, A., Desrochers, A., [in revision], **New oxygen and carbonate clumped isotope constraints on the Hirnantian Glacial Maximum: Implications for understanding the Late Ordovician mass extinction**. *Geological Society of America Bulletin*.
21. Quinn, D. P., Grotzinger, J. P., **Present, T. M.**, [in revision], **Tectonostratigraphy of the Zebra Series and the tectonic evolution of the Naukluft Mountains, Namibia**. *Geological Society of America Bulletin*.
20. da Rocha Santos, L., Cury, L. F., **Present, T. M.**, Crémière, A., Bahniuk, A., Fedalto, G., Fernandes, D. P., Swart, R., [in review], **The puzzle of the Piambo fossil travertine field: Witnessing basin scale events and drawing paleolandscapes in the Namibe Basin, Angola**. *Palaeogeography, Palaeoclimatology, Palaeoecology*.
19. Hatton, K., Henkes, G., Sousa, F., Cox, S., Hemming, S., Saslaw, M., Steponaitis, E., Ma, C., **Present, T. M.**, Jaret, S. J., Ehm, L., Northrup, P., Tappero, R. V., Wootton, K. M., Rossie, J., Cote, S., Nengo, I., Feibel, C., Rasbury, E. T., [in revision], **A middle Miocene disconformity in the Lothidok Hills of the Turkana Basin, Kenya documented by U-Pb geochronology of dolomitized fossil wood**.
18. Lotem, N., Rasmussen, B., Zi, J.-W., Zeichner, S. S., **Present, T. M.**, Fischer, W. W., [accepted], **Reconciling Archean organic-rich mudrocks with low primary productivity before the Great Oxygenation Event**. *Proceedings of the National Academy of Sciences*.
17. Cantine, M., Orzechowski, E., Stein, N., Lincoln, T., Hibner, B., **Present, T. M.**, Thorpe, M., Strauss, J., Rumbelsperger, A. M. B., Alleon, J., Knoll, A., Grotzinger, J., Gomes, M., Trower, E., 2024, **Rapid growth of a carbonate island over the last millennium**. *Sedimentology*, v. 71, no. 7, p. 2067-2512, doi: 10.1111/sed.13202
16. Moore, K. R., Cremiere, A., **Present, T. M.**, Barnett, A., Bergmann, K. D., Amthor, J., Grotzinger, J., 2024, **Primary microfossiliferous chert in the Aptian Barra Velha Formation**. *Sedimentology*, v. 71, no. 6, p. 1815-1842, doi: 10.1111/sed.13193
15. Sanders, C., B., **Present, T. M.**, Marroquin, S., Grotzinger, J., 2024, **Sulfur geochemistry of the Salitre Formation phosphorites: Implications for the role of microbial ecology, sulfur cycling in phosphogenesis on an Ediacaran carbonate platform**. *Geochimica Cosmochimica Acta*, v. 367, p. 41-57, doi: 10.1016/j.gca.2023.12.033
14. Stein, N. T., Grotzinger, J. P., Quinn, D. P., Lingappa, U. F., **Present, T. M.**, Trower, E. J., Gomes, M. L., Orzechowski, E., Cantine, M., Metcalfe, K. S., Fischer, W. W., Ehlmann, B. L., Strauss J. V., Knoll, A. H., 2023, **Geomorphic and environmental controls on microbial mat fabric on Little Ambergris Cay, Turks and Caicos Islands**. *Sedimentology*, v. 70, no. 6, p. 1915-1944, doi: 10.1111/sed.13100
13. Lincoln, T. A., Webb, S. M., **Present, T. M.**, Magyar, J. S., Trower, E. J., 2022, **Microbial activity and neomorphism influence the composition and microfabric of ooids from Great Salt Lake, UT**. *The Sedimentary Record*, v. 20, no. 1, p. 1-9, doi: 10.2110/001c.56183
12. Moore, K. R., **Present, T. M.**, Pavia, F., Grotzinger, J. P., Hollis, J. R., Sharma, S., Flannery, D., Bosak, T., Tuite, M., Knoll, A. H., Williford, K., 2022, **Biosignature preservation aided by organic-cation interactions in Proterozoic tidal environments**. *PALAOIS*, v. 37, p. 486-498, doi: 10.2110/palo.2022.017
11. Lingappa, U. F., Stein, N. T., Metcalfe, K. S., **Present, T. M.**, Orphan, V. J., Knoll, A. H., Grotzinger, E. J., Gomes, M. L., Fischer, W. W., 2022, **Early impacts of climate change on a coastal marine microbial mat ecosystem**. *Science Advances*, v. 8, no. 21, eabm7826, doi: 10.1126/sciadv.abm7826
10. Bryant, R. N., **Present, T. M.**, Ahm, A.-S. C., McClelland, H.-L. O., Razonale, D., Blättler, C. L., 2022, **Early diagenetic constraints on Permian seawater chemistry from the Capitan Reef**. *Geochimica Cosmochimica Acta*, v. 328, p. 1-18, doi: 10.1016/j.gca.2022.04.027

9. Ingalls, M., Grotzinger, J. P., **Present, T. M.**, Rasmussen, B., Fischer, W. W., 2021, **Carbonate-associated phosphate (CAP) indicates elevated phosphate availability in Neoproterozoic shallow marine environments.** *Geophysical Research Letters*, v. 49, no. 6, e2022GL098100, doi: 10.1029/2022GL098100
8. Johnson, D. L., **Present, T. M.**, Li, M., Shen, Y., Adkins, J. F., 2021, **Carbonate associated sulfate  $\delta^{34}\text{S}$  heterogeneity across the End-Permian Mass Extinction.** *Earth & Planetary Science Letters*, v. 524, no. 117172, p. 1-10, doi: 10.1016/j.epsl.2021.117172
7. Rasbury, E. T., **Present, T. M.**, Northrup, P., Tappero, R., Lanzirotti, A. Cole, J. M., Wootton, K., Hatton, K., 2021, **Tools for uranium characterization in carbonate samples: Case studies of natural U-Pb geochronology reference materials.** *Geochronology*, v. 3, no. 1, p. 103-122, doi: 10.5194/gchron-3-103-2021
6. Goldberg, S. L., **Present, T. M.**, Finnegan, S., Bergmann, K., 2021, **A high-resolution record of early Paleozoic climate.** *Proceedings of the National Academy of Sciences*, v. 118, no. 6, e2013083118, doi: 10.1073/pnas.2013083118
5. Smith, B. P., Ingalls, M., Trower, E. J., Lingappa, U. F., **Present, T. M.**, Magyar, J. S., Fischer, W. W., 2020, **Physical Controls on Carbonate Intraclasts: Modern Flat Pebbles from Great Salt Lake, Utah.** *Journal of Geophysical Research – Earth Surface*, v. 125, no. 11, e2020JF005733, doi: 10.1029/2020JF005733
4. Fernandes, A. M., Abeyta, A., Mahon, R. C., Martindale, R., Bergmann, K. D., Jackson, C., **Present, T. M.**, Reano, D., Swanson, T., Butler, K., Brisson, S., Johnson, C., Mohrig, D., Blum, M. D., 2020, **“Enriching Lives within Sedimentary Geology”: Actionable Recommendations for Making SEPM a Diverse, Equitable and Inclusive Society for All Sedimentary Geologists.** *The Sedimentary Record*, v. 18, no. 3, p. 4-12, doi: 10.2110/sedred.2020.3.4
3. Paris, G., Fischer, W. W., Johnson, J. E., Webb, S. M., **Present, T. M.**, Sessions, A. L., Adkins, J. F., 2020, **Deposition of sulfate aerosols with positive  $\Delta^{33}\text{S}$  in the Neoproterozoic.** *Geochimica et Cosmochimica Acta*, v. 285, p. 1-20, doi: 10.1016/j.gca.2020.06.028
2. Trower, E. J., Cantine, M. D., Gomes, M. L., Grotzinger, J. P., Knoll, A. H., Lamb, M. P., Lingappa, U., O’Reilly, S. S., **Present, T. M.**, Stein, N., Strauss, J. V., Fischer, W. W., 2018, **Active ooid growth driven by sediment transport in a high energy shoal, Little Ambergris Cay, Turks and Caicos, British Overseas Territories.** *Journal of Sedimentary Research*, v. 88, no. 9, p. 1132-1151, doi: 10.2110/jsr.2018.59
1. Burke, A., **Present, T. M.**, Paris, G., Rae, E. C., Sandilands, B. H., Gaillardet, J., Peucker-Ehrenbrink, B., Fischer, W. W., Voss, B. M., McClelland, J. W., Spencer, R. G., Adkins, J. F., 2018, **Sulfur isotopes in rivers: Insights into global weathering budgets, pyrite oxidation, and the modern sulfur cycle.** *Earth & Planetary Science Letters*, v. 496, p. 168-177, doi: 10.1016/j.epsl.2018.05.022

**Submitting Winter 2025 (drafts & figures available upon request):**

4. Crémière, A., Adams, E. W., Barnett, A. J., Bergmann, K. D., **Present, T. M.**, Ma, J., Amthor, J. E., Albrecht, H., Adkins, J. F., Bahniuk, A. R., Bridgestock, L., Campbell, R. J., Cury, L. F., Newport, N., Obermaier, M., Moore, K. R., Muniz, Y., Summons, R. E., Wignall, B., [in prep.], **Rifting, volcanic activity, and their impact on the evolution of the pre-salt giant, the Santos Basin.** Submitting to *Science Advances*.
3. **Present, T. M.**, Goldberg, S. L., Trudgill, M. D., Bergmann, K. D., Paris, G., Thiagarajan, N., Finnegan, S., Lepland, A., Rae, J. W. B., Fike, D., Fischer, W. W., Adkins, J. F., [in prep.], **Marine and diagenetic sulfur cycling during Late Ordovician glaciation and mass extinction.** Submitting to *Nature Geosciences*.
2. Moore, K. R., **Present, T. M. †**, Crémière, A., Barnett, A., Bergmann, K. D., Amthor, J., Grotzinger, J. P., [in prep.], **Cretaceous chert-hosted microfossils visualized with synchrotron ptychographic x-ray computed tomography.** Submitting to *Geobiology*.
1. **Present, T. M.**, Adams, E. W., Bergmann, K. D., Ingalls, M., Al-Rawahi, Z., Harthi, A., Grotzinger, J. P., [awaiting Ministry of Geology release], **Exposure and karst development during deposition of the Ediacaran Birba Platform, South Oman Salt Basin.** Submitting to *Journal of Sedimentary Research*.

## GRANTS & AWARDS

Co-Investigator: Resnick Sustainability Institute Explorer Grant <i>“Blue Carbon Storage Changes in Southern California’s Largest Salt Marsh”</i>	submitted
Co-Investigator: NASA Exobiology 24-EXO24-0034 <i>“Metal Bioavailability for Emerging Life in Anoxic Ocean Worlds”</i>	submitted
Co-Investigator: Simons Foundation Life Sciences Project Award #668346 <i>“Terrestrial analog studies of magnesium carbonates at Jezero Crater, Mars”</i>	2021 – 2025
Co-Author: Caltech Center for Comparative Planetary Evolution/Microanalysis Center Grant <i>“Conditions of Magnesite Formation from O and Si Isotopic Composition of Co-existing Silicates and Carbonates”</i>	2022
<i>Sedimentology</i> Editors’ Pick	2019
Author: Society for Sedimentary Geology (SEPM) Student Travel Grant	2017
Author: Society for Sedimentary Geology (SEPM) Student Research Grant	2016
Author: American Chemical Society Petroleum Research Fund New Directions Grant #53994-ND2 <i>“A new high-resolution technique for measuring sulfur isotopes in Carbonate Associated Sulfate: Stratigraphic tests in late Permian platform carbonates”</i>	2013 – 2015
Phi Beta Kappa Honors Thesis Research Prize	2011
Schreyer Honors Thesis Research Grant	2010

## TEACHING EXPERIENCE

Caltech Summer Undergraduate Research Fellowship (SURF) Mentor	2016, 2017, 2023, 2024
Lecturer (Instructor of Record)	
Ge 115c: Petrography Laboratory	2025
Ge 121b: Advanced Field Geology	2023
Ge 11a & Ge 101: Introduction to Geology & Geochemistry: Earth as a Planet	2022
Agouron International Geobiology Course Instructor	2017, 2019
Carbonate Petrography and Diagenesis; Stratigraphy; Stable Isotope Analysis	
Presenter, Longfellow Elementary Science Night, Pasadena, CA	2016
Graduate Teaching Assistant	2013 – 2016
Introduction to Geology and Geochemistry; Sedimentology & Stratigraphy; Metamorphic Petrology; Igneous & Metamorphic Petrography; Analytical Techniques in the Earth Sciences	
6 <sup>th</sup> Grade Earth Science guest teacher, McKinley Middle School, Pasadena, CA	2012, 2013
Teaching Assistant, Penn State Geobiology Summer Field Course	2011
Undergraduate Teaching Intern, GEOSC 040: “The Sea Around Us”	2010

## INVITED PRESENTATIONS

Stony Brook University, Department of Geosciences Colloquium	2023
Texas A&M University, Department of Geology & Geophysics	2023
Northwestern University, Department of Earth and Planetary Science	2023
University of California, Riverside, Earth & Planetary Sciences	2023
Université de Lorraine, Le Centre de Recherches Péetrographiques et Géochimiques	2022
University of Southern California, Earth Sciences: Paleo/Environmental Seminar	2015, 2021
Columbia University, Lamont-Doherty Earth Observatory: Geochemistry Seminar	2017
Invited Presentation at Fall Meeting, AGU	2014

## PROFESSIONAL ACTIVITIES

Society for Sedimentary Geology (SEPM) Mountjoy Carbonate Research Conference Planning Committee	2024
Society for Sedimentary Geology (SEPM) Research Council	2023 –

Sedimentology Lab Safety Officer	2016 –
AGU Paleooceanography & Paleoclimatology Early Career Working Group	2021, 2022
Co-convenor and Session Chair, Fall Meeting, AGU	2017 – 2021
Carbonate sediments through time: Processes of Deposition and Diagenesis	
Unlearning Racism in Geoscience (URGE) Pod	2021
Caltech COVID-19 HVAC Working Group	2020
Society for Sedimentary Geology (SEPM) Dickinson Medal Selection Committee	2017, 2018
Sexual Harassment Protocols Committee, Caltech Division of Geological and Planetary Sciences	2017, 2018
Peer Reviewer	
2024 (3): <i>Geochimica Cosmochimica Acta</i> ; <i>Biogeosciences</i> ; <i>Global Planetary Change</i>	
2023 (7): <i>Earth-Science Reviews</i> ; <i>Nature Geosciences</i> ; <i>Geostandards &amp; Geoanalytical Research</i> (2x); <i>Nature Communications Earth &amp; Environment</i> ; <i>Geochimica Cosmochimica Acta</i> ; <i>Geochemistry</i> , <i>Geophysics</i> , <i>Geosystems</i>	
2022 (5): <i>Geosciences</i> (2x, <b>Outstanding Reviewer Award</b> ), <i>Biogeosciences</i> , <i>Chemical Geology</i> , <i>Nature Geosciences</i>	
2021 (8): <i>Terra Nova</i> (2x); <i>Chemical Geology</i> ; <i>AGU Advances</i> (2x); <i>GSA Bulletin</i> ; <i>Geosciences</i> ; <i>Applied Geochemistry</i>	
2020 (7): <i>Earth &amp; Planetary Science Letters</i> ; <i>Palaeogeography</i> , <i>Palaeoclimatology</i> , <i>Palaeoecology</i> ; <i>Sedimentology</i> ; <i>Geological Magazine</i> ; <i>Chemical Geology</i> ; <i>Systems Biogeochemistry of Major Marine Biomes</i> (AGU book); <i>The Depositional Record</i>	
2019 (4): <i>Nature Geosciences</i> , <i>Geology</i> , <i>Sedimentology</i> , <i>Applied Geochemistry</i> , <i>Geological Magazine</i>	
2018 (6): <i>Nature Scientific Reports</i> ; <i>Earth &amp; Planetary Science Letters</i> (3x); <i>Sedimentary Geology</i> ; <i>Geochemistry</i> , <i>Geophysics</i> , <i>Geosystems</i>	
Proposal Reviewer:	
2024: Stanford Synchrotron Radiation Lightsource (3x)	
2021: Stanford Synchrotron Radiation Lightsource	
2020: Stanford Synchrotron Radiation Lightsource; NSF Geomorphology & Land-use Dynamics Program	
2016: Czech Science Foundation	

## FIELD & DRILL CORE RESEARCH

Tertiary volcano-sedimentary magnesites, eastern Mojave Desert, CA, USA	2024 –
Holocene salt marsh sedimentology & geochemistry, Mugu Lagoon, CA, USA	2023 –
Miocene lacustrine carbonate-clastic stratigraphy & sedimentology, Ridge Basin, CA, USA	2022 –
Quaternary serpentinite laterite & fluvial vertisol pedogenesis, central Queensland, Australia	2022 –
Mesoproterozoic foreland basin stratigraphy & geochemistry, Great Slave Lake, Northwest Territories, Canada	2019
Cretaceous South Atlantic rift basin stratigraphy & sedimentology, Namibe Basin, Angola	2019
Cretaceous South Atlantic rift basin sedimentology & geochemistry (core), Santos Basin, offshore Brazil	2018 – 2022
Ediacaran Basal Ara Carbonate stratigraphy & geochemistry (core), South Oman Salt Basin, Oman	2018
Holocene carbonate sedimentology & geochemistry, Little Ambergris Cay, Turks & Caicos Islands	2017 – 2018
Ediacaran Naukluft Nappes stratigraphy & structural mapping, Naukluft Mountains, Namibia	2014
Pleistocene pore fluid geochemistry and sedimentology, R/V <i>Knorr</i> Cruise 223, North Atlantic Gyre	2014
Permian Reef stratigraphy & geochemistry, Guadalupe Mountains, TX and NM, USA	2013 – 2016
Mesoproterozoic stratabound sulfide sedimentology & geochemistry (core), Belt Supergroup, MT, USA	2013 – 2014

## CONFERENCE ABSTRACTS

**Abstracts that my mentee or I presented:**  
(\* Undergraduate mentee; \*\* Doctoral mentee)

Poster: **Christensen, M.\***, Cardarelli, E., **Swindle, C.\*\***, **Bhattacharjee, S.\*\***, Dimarco, Z., Vasconcelos, P., **Present, T. M.**, 2024, **Magnesite and phyllosilicates field relations developed during alteration of two alluvial-lacustrine sedimentary analogs for Mars deposits**, Fall Meeting, AGU, Washington, D. C.

- Poster: **Present, T. M., Swindle, C.\*\***, Bhattacharjee, S.\*\*, Cardarelli, E., Dimarco, Z., Moore, K. R., Eitel, E. E., **Jangir, M.\***, Christensen, M.\*, Farley, K., Vasconcelos, P., 2024, **Magnecretes: formation and alteration of magnesium carbonates in groundwater and regolith in central Queensland, Australia, and catchment-scale processes relevant to Martian carbonate deposits**, *GSA Abstracts with Programs*, vol. 56, no. 5, doi: 10.1130/abs/2024AM-405232, GSA Connects, Anaheim, California.
- Poster (Mentee): **Swindle, C.\*\***, Vasconcelos, P., Dimarco, Z., Dalleska, N., Cardarelli, E., **Bhattacharjee, S.\*\***, Farley, K., **Present, T.**, 2024, **Near-surface aqueous conditions inferred from the composition of magnesites from central Queensland, Australia: a Jezero Crater analog**, *GSA Abstracts with Programs*, vol. 56, no. 5, doi: 10.1130/abs/2024AM-403540, GSA Connects, Anaheim, California.
- Poster (Mentee): **Olah, J.\***, Grotzinger, J. P., **Present, T. M.**, Geyman, E. C., 2024, **Quantitative analysis of stromatolite morphometrics, Paleoproterozoic Rocknest Formation, Canada**, *GSA Abstracts with Programs*, vol. 56, no. 5, doi: 10.1130/abs/2024AM-402627, GSA Connects, Anaheim, California.
- Oral (Mentee): **Bhattacharjee, S.\*\***, **Present, T. M.**, Blättler, C.L., S. Grewal, D.S., Guan, Y., Ma, C., **Swindle, C.\*\***, Sliwinski, M.G., Asimow, P.D., Valley, J.W., Eiler, J.M., 2024, **Mg isotope evidence that magnesite in Martian meteorite ALH84001 precipitated as hydromagnesite**, *Goldschmidt Abstracts*. Chicago, Illinois.
- Poster (Mentee): **Jangir, M.\***, **Present, T. M.**, 2023, **Magnesite Formation in Depositional Sedimentary Environments**, Caltech SURF Seminar, Pasadena, California.
- Poster: **Present, T. M.**, Bergmann, K. D., Ryb, U., Bryant, R., Grotzinger, J. P., 2023, **Early diagenesis in the Permian Reef**, *SEPM Advances in the Understanding and Interpretation of Carbonates*, Houston, Texas.
- Poster: **Present, T. M.**, Goldberg, S. L., Trudgill, M. D., Bergmann, K. D., Finnegan, S., Rae, J. W. B., Fike, D., Fischer, W. W., Adkins, J. F., 2022, **Marine and diagenetic sulfur cycling during Late Ordovician glaciation and mass extinction**, Geobiology Gordon Research Conference, Ventura, California.
- Oral (Mentee): **Swindle, C.\*\***, **Present, T. M.**, Vasconcelos, P. M., Dalleska, N. F., Farley, K. A., 2022, **Trace Element Characterization of Magnesite Formation and Weathering from Source-to-sink in Central Queensland Australia: a Potential Earth Analog to Jezero Crater, Mars**, Fall Meeting, AGU, Chicago, Illinois.
- Poster: **Present, T. M.**, Adams, E. W., Bergmann, K. D., Al-Rawahi, Z., Harthi, A., Grotzinger, J. P., 2021, **Karst development and re-inundation by suboxic fluids of the Ediacaran Basal Ara Carbonate, South Oman Salt Basin**, Fall Meeting, AGU, New Orleans, Louisiana.
- Poster (online): **Present, T. M.**, Lingappa, U., Ingalls, M., Grotzinger, J. P., 2020, **Recognition of Paleoproterozoic alkaline environments**, Simons Collaboration on the Origins of Life Annual Symposium.
- Poster (online): **Present, T. M.**, Ryb, U., Bergmann, K. D., Eiler, J. M., Grotzinger, J. P., 2020, **Fabric-retentive early dolomite preserves ancient seawater composition, Yates and Tansill formations, Permian Reef complex, Guadalupe Mountains, Texas and New Mexico**, Fall Meeting, AGU.
- Poster: **Present, T. M.**, Goldberg, S., Kast, E., Cummins, R., Bergmann, K. D., Finnegan, S., Rae, J. B., Burke, A., Johnson, D. L., Fike, D., Fischer, W. F., Adkins, J. F., 2019, **Stability of Upper Ordovician to middle Silurian marine sulfur isotopes recorded in brachiopod carbonate-associated sulfate**, Fall Meeting, AGU, San Francisco, California.
- Oral: **Present, T. M.**, Ryb, U., Bergmann, K. D., Lloyd, M. K., Ingalls, M., Snell, K., Eiler, J. M., Grotzinger, J. P., 2019, **Primary seawater geochemistry in fabric-retentive early dolomite, Yates and Tansill formations, Permian Reef complex, Guadalupe Mountains, Texas and New Mexico**, Seventh International Clumped Isotope Workshop, Long Beach, California.
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