James T. Haber Ph.D.

Postdoctoral Research Fellow
Center for Earth and Planetary Studies
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Education

Purdue University / Ph.D.
August 2018 - August 2023, *West Lafayette, IN*

Advisor: Prof. Briony Horgan

Cornell University / B.A.
August 2014 - May 2018, *Ithaca, NY*

Major: Physics, *cum laude*

Minors: Mechanical Engineering and Astronomy

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Employment

Earth and Planetary Sciences Postdoctoral Fellow
Center for Earth and Planetary Studies, National Air and Space Museum, Smithsonian Institution
August 2023 - Present, *Washington, DC*

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NASA Mission Involvement

2022 - 2023	Science Payload Downlink Lead, Mastcam-Z, Mars 2020 Mission
2018 - 2023	Geology Keeper of the Plan, Mars Science Laboratory Mission
2017-2018	Europa Clipper trajectory analysis for the Europa Imaging System

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Publications

J. T. Haber, B. Horgan, A. A. Fraeman, J. R. Johnson, J. F. Bell III, M. S. Rice, C. Seeger, N. Mangold, L. Thompson, D. Wellington, E. Cloutis, and S. Jacob. (2022). Mineralogy of a possible ancient lakeshore in the Sutton Island member of Mt. Sharp, Gale Crater, Mars, from Mastcam multispectral images. *JGR: Planets.* https://doi.org/10.1029/2022JE007357.

A. Rudolph, B. Horgan, J. R. Johnson, K. Bennet, **J. T. Haber**, J. F. Bell III, V. Fox, S. Jacob, S. Maurice, E. Rampe, M. S. Rice, C. Seeger, and R. Wiens. (2022). The distribution of clay minerals and their impact on diagenesis in Glen Torridon, Gale crater, Mars. *JGR: Planets.* https://doi.org/10.1029/2021JE007098.

Conference Proceedings (First Author)

J. T. Haber, B. Horgan, S. L. Potter-McIntyre, A. Broz, R. Smith. (2023). Evidence of Increased Surface Exposure and Diagenetic Alteration in Evaporitic Environments on Earth and Mars. *LPSC 53*, #2577.

J. T. Haber, B. Horgan, S. L. Potter-McIntyre, R. Smith. (2022). Understanding how Changes in Water Table Affect Mineralogy and Diagenesis: The Lower Carmel Formation as an Analog for Evaporitic Lakes on Mars. *AGU Fall Meeting 2022*, #1047381.

J. T. Haber, B. Horgan, S. L. Potter-McIntyre. (2022). Understanding the Formation Mechanisms and Alteration Histories of Diagenetic Features in Gale crater, Mars, using Terrestrial Analogs. *AbSciCon*, #1026282.

J. T. Haber, B. Horgan, A. A. Fraeman, A. Rudolph. (2022). Widespread Diagenesis at Unconformities in Gale Crater as Observed from Curiosity and Orbit. *LPSC 53*, #1496.

J. T. Haber, B. Horgan, A. A. Fraeman. (2021). Using Color to Map Diagenesis in Gale Crater: Comparing the Rover and Orbital Perspective. *AGU Fall Meeting 2021*, #860234.

J. T. Haber, B. Horgan, A. A. Fraeman. (2021). Using Color to Map Diagenesis in Gale Crater: Comparing the Rover and Orbital Perspective. *LPSC 52*, #1607.

J. T. Haber, B. Horgan, A. A. Fraeman, J. R. Johnson, S. L. Potter-McIntyre, D. Wellington, J. F. Bell III, M. S. Starr, M. S. Rice, and N. Mangold (2020). Diagenesis of an Ancient Lakeshore in Gale Crater, Mars, from Mastcam Multispectral Images. *LPSC 51*, #2112.

J. T. Haber, B. Horgan, A. A. Fraeman, J. R. Johnson, D. Wellington, J. F. Bell III, M. S. Starr, M. S. Rice, and N. Mangold (2019). Mineralogy of a Possible Ancient Lakeshore in Gale Crater, Mars, from Mastcam Multispectral Images. *Mars 9*, *#6229*.

J. T. Haber, B. Horgan, A. A. Fraeman, J. R. Johnson, and D. Wellington (2019). Mineralogy of an Ancient Lakeshore in Gale Crater, Mars, from Mastcam Multispectral Imagery. *LPSC 50*, #1871.

J. T. Haber, P. O. Hayne, and C. M. Elder (2018). Rock Abundance and Surface Ages in the Lunar Maria. *LPSC 49*, #2463.

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Awards

2022 AbSciCon Travel Grant Award from NASA Astrobiology
2021 GSA Graduate Student Research Grant
2021 IndianaView Student Scholarship
2021 LPI Career Development Award

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Workshops and Internships

2022 NASA Planetary Science Summer School
2019 LPI Planetary Scientist Engagement Institute
2019 NASA Planetary Volcanology Workshop
2019 Volcano Workshop and Summer School
2017 Caltech/JPL Summer Undergraduate Research Fellowship