Justin V. Strauss

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Education

Harvard University, Cambridge, MA
PhD, Department of Earth and Planetary Sciences — May 2015
MA, Department of Earth and Planetary Sciences — May 2014

The Colorado College, Colorado Springs, CO
BA, Department of Geology — Aug. 2006

Professional Experience

Dartmouth College, Department of Earth Sciences, Hanover, NH
Associate Professor — July 2022–present
Assistant Professor — Jan. 2016–June 2022

Stanford University, Department of Geological Sciences, Stanford, CA
Agouron Institute Geobiology Postdoctoral Scholar — July 2015 - Dec. 2015

Harvard University, Department of Earth and Planetary Sciences, Cambridge, MA
Doctoral Student — Sep. 2010 - July 2015

The Colorado College, Department of Geology, Colorado Springs, CO
Paraprofessional — Sept. 2006 - June 2007

Honors and Awards

2022 Karen Wetterhahn Memorial Award for Distinguished Creative or Scholarly Achievement – Dartmouth College
2022 C. Troy Shaver 1969 Fellowship Award – Dartmouth College
2021 Alfred P. Sloan Foundation Earth System Science Fellow
2018 National Geographic Explorer
2018 American Chemical Society Doctoral New Investigator Award
2015 Agouron Institute Geobiology Postdoctoral Fellowship
2015 Geological Society of America Graduate Student Research Grant
2014 Geological Society of America Graduate Student Research Grant
2013 Star Family Prize for Excellence in Undergraduate Advising Nominee – Harvard University
2013 Bok Center Distinction in Teaching Award – Harvard University
2012 GACMAC 2012 Jerome Remick III Poster Award
2012 National Science Foundation Graduate Research Fellowship Recipient
2006 William A. Fischer Special Recognition Geosciences Award – Colorado College
2005 Patricia J. Buster Scholarship for Undergraduate Research – Colorado College
2004 Patricia J. Buster Scholarship for Undergraduate Research – Colorado College

Journal Publications

*Dartmouth Graduate/Postdoc Author **Dartmouth Undergraduate Author ***Joint 1st Author

In Review/In Preparation:

*Barnes, B.D., Jiang, C.Z., Methley, P., **Strauss, J.V.**, and Tosca, N.J., *in review*, $CaCO_3$ precipitation kinetics and polymorphism in ferruginous seawater: *Earth and Planetary Science Letters*, v. xx, p. xxx–xxx.

Getraer, A., Nordin, B.J., **Strauss, J.V.**, and Palucis, M.C., *in review*, Postglacial canyon incision primes ice-cored hillslopes for permafrost thaw-slumping in the western Canadian Arctic: *Geology*, v. xx, p. xxx–xxx.

Malik, M.H., Hussain, A., Koeshidayatullah, A., **Strauss, J.V.**, Herlambang, A., Bello, A.M., Al-Ramadan, K., *in review*, Transtensional fault-controlled sedimentation in the Ediacaran mixed siliciclastic-carbonate Dhaiqa Basin, NW Saudi Arabia: *Sedimentary Geology*, v. xx, p. xxx.

*Mehra, A., *Busch, J.F., Leslie, S.A., Jin, J., Melchin, M.J., and **Strauss, J.V.**, *in review*, Three-dimensional reconstruction of a far-field Hirnantian carbonate lowstand: *Geology*, v. xx, p. xxx.

Methley, P., Jiang, C.Z., **Strauss, J.V.**, and Tosca, N.J., *in prep.*, Evaporation of Neoproterozoic seawater drives amorphous calcium-magnesium carbonate production: *Geophysical Research Letters*, v. xxx, p. xxx–xxx.

Millikin, A.E.G., *Gibson, T.M., **Strauss, J.V**., Bergmann, K.D., Tosca, N.J., Anderson, R.P., Halverson, G.P., Zhang, T., and Rooney, A.D., *in review*, Geochemistry and mineralogy of Neoproterozoic strata in northeastern Svalbard: re-evaluating the prevalence of basalt weathering during the early Neoproterozoic: *Geological Society of America Bulletin*, v. xx, p. xxx–xxx.

Ostrander, C.M., Clemente, J.N.R., Stockey, R.G., Nielsen, S.G., **Strauss, J.V.**, Fraser, T., and Sperling, E.A., *in prep.*, Oscillatory early Paleozoic ocean ventilation: *Science Advances*, v. xxx, p. xxx–xxx.

Pierce, J.S., Evans, D.A.D., Polomski, D., Youbi, N., Mediany, A.M., Ounar, J., Oukhro, R., Boumedhi, M.A., **Strauss, J.V.**, Keller, C.B., Gartner, A., Ovtcharova, M., Wotzlaw, J.F., and Linnemann, U., *in review*, Magnetostratigraphic resolution of the late Ediacaran paleomagnetic enigma: *Nature Geoscience*, v. xxx, p. xxx–xxx.

Vayda, P., Xiao, S., Keller, N., Hagen, A., **Strauss, J.V.**, Hagadorn, J., Lonsdale, M., Selly, T., and Schiffbauer, J., *in prep.*, A cnidarian affinity for Salterella and Volborthella and implications for the evolution of shells: *Journal of Paleontology*, v. xx, p. xxx–xxx.

Accepted/In Press:

*Biasi, J., and **Strauss, J.V.**, *accepted*, A review of paleomagnetic studies from northern Alaska and Yukon: *Canadian Journal of Earth Sciences*, v. xx, p. xxx–xxx.

Mughal, S., Millikin, A.E.G., *Zhang, T., *Gibson, T.M., Rooney, A.D., Tosca, N.J., Bergmann, K.D., **Strauss, J.V.**, and Anderson, R.P., *accepted,* The Svanbergfjellet Formation: Viewing the nascent eukaryotic world: *Journal of the Geological Society of London* – Lagerstatten Series, v. xxx, p. xxx–xxx.

Taylor, J.F., **Strauss, J.V.**, and Repetski, J.E., *in press*, Late Furongian arthropod and conodont faunas and a new basal Ibexian (uppermost Cambrian Sate 10) isotopic excursion in the Jones Ridge Limestone of Alaska, in Laurie, J., *ed.*, Cambrian–Ordovician Studies VII: *Australasian Palaentological Memoirs*, v. xxx, p. xxx–xxx.

2024:

77. Boag, T.H., *Busch, J.F., Gooley, J., **Strauss, J.V.**, and Sperling, E.A., 2024, Deep-water first occurrences of Ediacara biota prior to the Shuram carbon isotope excursion in the Wernecke Mountains, Yukon, Canada: *Geobiology*, v. 22, n. 3, p. 1–23. 10.1111/gbi.12597

76. Cantine, M., Orzechowski, E., Stein, N., Lincoln, T., Hibner, B., Present, T., Thorpe, M., **Strauss, J.V.**, Rumbelsperger, A.M.B., Knoll, A.H., Grotzinger, J., Gomes, M, and Trower, E., 2024, Rapid growth of a carbonate island over the last millennium: *Sedimentology*, v. 71, p. 2119–2143. 10.1111/sed.13202

75. Koch, M.M., McClelland, W.C., Gilotti, J.A., Kosminska, K., **Strauss, J.V.**, *Faehnrich, K., Beranek, L.P., and Pease, V., 2024, Early Paleozoic accretion history of the Pearya terrane: new insights from igneous and detrital zircon signatures of the Kulutingwak complex, Ellesmere Island, Nunavut, Canada: *Geosphere*, v. 20 (3), p. 778–798. 10.1130/GES02723.1

74. Stockey, R.G., Cole, D.B., Farrell, U.C., Boag, T.H., Brocks, J.J., Canfield, D.E., Cheng, M., Crockford, P.W., Cui, H., Dahl, T.W., Del Mouro, L., Dewing, K., Dornbos, S.Q., Emmings, J.F., Gaines, R.R., Gibson, T.M., Gill, B.C., Gilleaudeau, G.J., Goldberg, K., Guilbaud, R., Halverson, G., Hammarlund, E.U., Hantsoo, K., Henderson, M.A., Hendserson, C.M., Hodgskiss, M.S.W., Jarrett, A.J.M., Johnston, D.T., Kabanov, P., Kimmig, J., Knoll, A.H., Kunzmann, M., LeRoy, M.A., Li, C., Loydell, D.K., Macdonald, F.A., Magnall, J.M., Mills, N.T., Och, L.M., O'Connell, B., Pages, A., Peters, S.E., Porter, S.M., Poulton, S.W. Ritzer, S.R., Rooney, A.D., Schoepefer, S., Smith, E.F., **Strauss, J.V.**, Uhlein, G.J., White, T., Woltz, C.R., Yurchenko, I., Planavsky, N.J., and Sperling, E.A., 2024, Multiple sustained increases in atmospheric oxygen and marine productivity through the Neoproterozoic and Paleozoic eras: *Nature Geoscience*, v. 17, p. 667–674. 10.1038/s41561-024-01479-1

2023:

73. Bazarnik, J., Kósminska, K., McClelland, W.C., **Strauss, J.V.**, Piepjohn, K., Elvevold, S., Zielinski, G., and Majka, J., 2023, Reinterpretation of a major terrane boundary in the northern Svalbard Caledonides based on metamorphic fingerprinting of rocks in northern Spitsbergen: *Canadian Journal of Earth Sciences*, v. 60, p. 1188–1205. 0.1139/cjes-2022-000

72. *Busch, J.F., Boag, T.H., Sperling, E.A., Rooney, A.D., Feng, X., Moynihan, D.P., and **Strauss, J.V.**, 2023, Integrated litho-, chemo-, and sequence stratigraphy of the Ediacaran Gametrail Formation across a shelf-slope transect in the Wernecke Mountains, Yukon, Canada: *American Journal of Science*, v. 323 (4), 74874. 10.2475/001c.74874

71. Dumoulin, J.A., **Strauss, J.V.**, and Repetski, J.E., 2023, Ordovician Geology of Alaska, *in* Percival, I., Harper, D., Lefebvre, B, and Servais, T., *eds.*, Global Synthesis of the Ordovician System II: *Geological Society of London Special Papers*, v. 533, p. 11–26. 10.1144/SP533-2022-39

70. *Faehnrich, K., McClelland, W.C., Webb, L., Kósminska, K., and **Strauss, J.V.**, 2023, Late Ediacaran–early Cambrian rifting along the northern margin of Laurentia: Constraints from the Yelverton Formation of Ellesmere Island, Canada: *Canadian Journal of Earth Sciences*, v. 60, no.12, p. 1597–1626. 10.1139/cjes-2023-0020

69. McClelland, W.C., **Strauss, J.V.**, Gilotti, J.A., and Colpron, M., 2023, Paleozoic evolution of the northern Laurentian margin: Evaluating links between the Caledonian, Ellesmerian, and Cordilleran orogens, *in* Whitmeyer, S.J., Williams, M.L., Kellett, D.A., and Tikoff, B., *eds.*, Laurentia: Turning Points in the Evolution of a Continent: *Geological Society of America Memoir* 220, p. 605–633. 10.1130/2022.1220(30)

68. Palucis, M.C., Morgan, A.M., **Strauss, J.V.**, Rivera-Hernandez, F., Marshall, J., Menio, E., and **Miller, R., 2023, Rates and processes controlling periglacial alluvial fan formation: Implications for Martian fans: *Geological Society of America Bulletin*, v. 135, no. 3/4, p. 937–954. 10.1130/B36459.1

67. Roest-Ellis, S., Richardson, J.A., Phillips, B.L., *Mehra, A., Webb, S.M., Cohen, P.A., **Strauss, J.V.**, and Tosca, N.J., 2023, Tonian carbonates record phosphate-rich shallow seas: *Geochemistry, Geophysics, Geosystems*, v. 24 (5), e2023GC010974. 10.1029/2023GC010974

66. 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.**, and Knoll, A.H., 2023, Geomorphic and environmental controls on microbial mat fabrics on Little Ambergris Cay, Turks and Caicos Islands: *Sedimentology*, v. 70, p. 1915–1974. 10.1111/sed.13100

65. **Strauss, J.V.**, *Faehnrich, K., McClelland, W.C., Koch, M.M., Crowley, J.L., Melchin, M.J., and Beranek, L.P., 2023, Reply to the Discussion by Hadlari on "Age and significance of the Fire Bay Formation: An Ordovician arc fragment within the Clements Markham belt, northwest Ellesmere Island": *Canadian Journal of Earth Sciences*, v. 60, no. 12, p. 1705–1708. 10.1139/cjes-2023-0039

64. *Zhang, T., Keller, C.B., Hoggard, M.J., Rooney, A.D., Halverson, G.P., Bergmann, K.D., Crowley, J.L., and **Strauss, J.V.**, 2023, A Bayesian framework for subsidence modeling in sedimentary basins: a case study of the Tonian Akademikerbreen Group of Svalbard, Norway: *Earth and Planetary Science Letters*, v. 620, 118317. 10.1016/j.epsl.2023.118317

2022:

63. *Busch, J.F., Hodgin, E.B., Ahm, A.-S., Husson, J.M., Macdonald, F.A., Bergmann, K.D., Higgins, J.A., and **Strauss, J.V.**, 2022, Global and local drivers of the Ediacaran Shuram carbon isotope excursion: *Earth and Planetary Science Letters*, v. 579, p. 117368. 10.1016/j.epsl.2022.117368

62. Kinney, S.T., Maclennan, S.A., Szymanowski, D., Keller, C.B., VanTongeren, J.A., Setera, J.B., Jaret, S.J., **Town, C.F., **Strauss, J.V.**, Bradley, D.C., Olsen, P.E., and Schoene, B., 2022., Onset of long-lived silicic and alkaline magmatism in eastern North America precedes CAMP emplacement: *Geology*, v. 50, p. 1301–1305. 10.1130/G50181.1

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60. Millikin, A.E.G., **Strauss, J.V.**, Halverson, G.P., Bergmann, K.D., Tosca, N.J., and Rooney, A.D., 2022, Calibrating the Russoya excursion in Svalbard, Norway, and implications for Neoproterozoic chronology: *Geology*, v. 50, p. 506–510. 10.1130/G49593.1

59. Richardson, J.A., Roest-Ellis, S., Phillips, B., **Strauss, J.V.**, Webb, S.M., and Tosca, N.J., 2022, Characterization and geological implications of Precambrian calcite-hosted phosphate: *Geophysical Research Letters*, v. 49, e2022GL100328. 10.1029/2022GL100328

2021:

58. Ahm, A-S.C., Bjerrum, C.J., Hoffman, P.F., Macdonald, F.A., Maloof, A.C., Rose, C.V., **Strauss, J.V.**, and Higgins, J.A., 2021, The Ca and Mg isotope record of the Cryogenian Trezona carbon isotope excursion: *Earth and Planetary Science Letters*, v. 568, p. 117002. 10.1016/j.epsl.2021.117002

57. *Busch, J.F., Rooney, A.D., Meyer, E.E., **Town, C., Moynihan, D., and **Strauss, J.V.**, 2021, Late Neoproterozoic–early Paleozoic basin evolution in the Coal Creek inlier of Yukon, Canada: Implications for the tectonic evolution of northwestern Laurentia: *Canadian Journal of Earth Sciences*, v. 58, p. 355–377. 10.1139/cjes-2020-013

56. *Faehnrich, K., McClelland, W.C., Colpron, M., **Nutt, C.L., **Miller, R.S., Trembath, M., and **Strauss, J.V.**, 2021, Pre-Mississippian stratigraphic architecture of the Porcupine Shear Zone, Yukon and Alaska, and significance in the evolution of northern Laurentia: *Lithosphere*, p. 7866155. 10.2113/2021/7866155

55. Farrell, U.C., Samawi, R., Anjanappa, S., Klykov, R., Adeboye, O., Agic, H., Ahm, A.-S.C., Boag, T.H., Bowyer, F.T., Brocks, J.J., Brunoir, T.N., Canfield, D.E., Chen, X., Cheng, M., Clarkson, M.O., Cordie, D., Crockford, P.W., Cui, H., Dahl, T.W., Mouro, L., Dewing, K., Dornbos, S., Drabon, N., Dumoulin, J.A., Emmings, J.F., Endriga, C., Fraser, T., Gaines, R.R., Gaschnig, R., Gibson, T., Gilleaudeau, G.J., Goldberg, K., Guilbaud, R., Halverson, G.P., Hammarlund, E.U., Hantsoo, K.G., Henderson, M., Hodgskiss, M.S.W., Horner, T.J., Husson, J., Johnson, B.W., Kabanov, P., Keller, C.B., Kimmig, J., Kipp, M.A., Knoll, A.H., Kreitsmann, T., Kunzmann, M., Kurzweil, F., LeRoy, M.A., Li, C., Lipp, A.G., Loydell, D.K., Lu, X., Macdonald, F.A., Magnall, J.M., Mänd, K., Mehra, A., Melchin, M.J., Miller, A.J., Mills, N.T., Mwinde, C., O'Connell, B., Och, L.M., Ossa Ossa, F., Pagès, A., Paiste, K., Partin, C.A., Peters, S.E., Playter, T., Plaza-Torres, S., Porter, S., Poulton, S.W., Pruss, S.B., Richoz, S., Ritzer, S.R., Rooney, A.D., Sahoo, S., Schoepfer, S.D., Sclafani, J.A., Shen, Y., Shorttle, O., Slotznick, S., Smith, E., Spinks, S.C., Stockey, R.G., **Strauss, J.V.**, Stüeken, E.E., Tecklenburg, S., Thomson, D., Tosca, N.J., Uhlein, G.J., Vizcaíno, M.N., Wang, H., White, T., Wilby, P., Woltz, C.,

Wood, R.A., Yurchenko, I., Zhang, T., Planavsky, N.J., Lau, K.V., Johnston, D.T., and Sperling, E.A., 2021, The Sedimentary Geochemistry and Paleoenvironments Project: *Geobiology*, v. 19, p. 545–556. 10.1111/gbi.12462

54. *Gibson, T.M., *Faehnrich, K., *Busch, J.F., McClelland, W.C., Schmitz, M.D., and **Strauss, J.V.**, 2021, A detrital zircon test of large-scale terrane displacement along the Arctic margin of North America: *Geology*, v. 49, p. 545-550. 10.1130/G48336.1

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52. *Mehra, A., Keller, C.B., *Zhang, T., Tosca, N.J., McLennan, S., Sperling, E.A., Farrell, U., Brocks, J., Canfield, D., Cole, D., Crockford, P., Cui, H., Dahl, T.W., Dewing, K., Emmings, J.F., Gaines, R.R., Gibson, T., Gilleaudeau, G.J., Guillbaud, R., Hodgskiss, M., Jarrett, A., Kabanov, P., Kunzmann, M., Loydell, D.K., Lu, X., Miller, A., Mills, N.T., Mouro, L.D., O'Connell, B., Peters, S.E., Poulton, S., Ritzer, S.R., Smith, E., Wilby, P., Woltz, C., and **Strauss, J.V.**, 2021, Curation and analysis of global sedimentary geochemical data to inform Earth history: *GSA Today*, v. 31, p. 4–9. 10.1130/GSATG484A.1

51. McClelland, W.C., **Strauss, J.V.**, Colpron, M., Gilotti, J.A., *Faehnrich, K., Malone, S.J., Gehrels, G.E., Macdonald, F.A., Oldow, J.S., 2021, "Taters" versus "Sliders": Evidence for a long-lived history of strike-slip displacement along the Canadian Arctic Transform System (CATS): *GSA Today*, v. 31, p. 4–11. 10.1130/GSATG500A.1

50. Roest-Ellis, S., **Strauss, J.V.**, and Tosca, N.J., 2021, Experimental constraints on non-skeletal $CaCO_3$ precipitation from mid-Neoproterozoic seawater: *Geology*, v. 49, p. 561–565. 10.1130/G48044.1

49. Sperling, E.A., Melchin M.J., Fraser, T., Stockey, R.G., Farrell, U.C., Bhajan, L., Browne, T.N., Cole, D.B., Gill, B.C., Lenz, A., Loydell, D.K., **Malinowski, J. Miller, A.J., Plaza-Torres, S., Rodewald, B., Rooney, A.D., Tecklenburg, S.A., Vogel, J.M., Planavsky, N.J., and **Strauss, J.V**., 2021, An exceptional record of early to middle Paleozoic redox change: *Science Advances*, v. 7, p. eabf4382. 10.1126/sciadv.abf438

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47. *Wala, V.T., Ziemniak, G., Majka, J., *Faehnrich, K., McClelland, W.C., Meyer, E.E., Manecki, M., Bazarnik, J., and **Strauss J.V.**, 2021, Neoproterozoic stratigraphy of the Southwestern Basement Province, Svalbard: Constraints on the Proterozoic–Paleozoic evolution of the North Atlantic-Arctic Caledonides: *Precambrian Research*, v. 358, p. 106138. 10.1016/j.precamres.2021.106138

2020:

46. *Faehnrich, K., Majka, J., Schneider, D., Mazur, S., Manecki, M., Ziemniak, G., *Wala, V.T., and **Strauss, J.V.**, 2020, Geochronological constraints on Caledonian strike-slip displacement in Svalbard, with implications for the evolution of the Arctic: *Terra Nova*, v. 32, p. 290–299. 10.1111/ter.12461

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42. **Strauss, J.V.**, Fraser, T., Melchin, M.J., Allen, T.J., **Malinowski, J., Feng, X., Taylor, J.F., Day, J., Gill, B.C., and Sperling, E.A., 2020, The Road River Group of northern Yukon, Canada: Early Paleozoic deep-water sedimentation

within the Great American Carbonate Bank: *Canadian Journal of Earth Science*, v. 57(10), p. 1193–1219. 10.1139/cjes-2020-0017

2019:

41. Ahm, A-S., Maloof, A.C., Macdonald, F.A., Hoffman, P.F., Bjerrum, C.J., Bold, U., Rose, C.V., **Strauss, J.V,** and Higgins, J.A., 2019, An early diagenetic deglacial origin for basal Ediacaran "cap dolostones": *Earth and Planetary Science Letters*, v. 506, p. 292–307. 10.1016/j.epsl.2018.10.046

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39. Colpron, M., **Strauss, J.V.**, and McClelland, W.C., 2019, Detrital zircon U-Pb geochronological and Hf isotopic constraints on the geological evolution of North Yukon, *in* Piepjohn, K., **Strauss, J.V.**, Reinhardt, L. and McClelland, W.C., eds., Circum-Arctic Structural Events: Tectonic Evolution of the Arctic Margins and Trans-Arctic Links with Adjacent Orogens: *Geological Society of America Special Paper 541*, p. 397–437. 10.1130/2018.2541(19)

38. Johnson, B.G., **Strauss, J. V.**, Taylor, J. F., Ward, W. P., Colpron, M., McClelland, W. C., Toro, J., 2019, The Whale Mountain allochthon: A relic of the Iapetus Ocean preserved in the northeastern Brooks Range of Alaska and Yukon, *in* Piepjohn, K., **Strauss, J.V.**, Reinhardt, L. and McClelland, W.C., eds., Circum-Arctic Structural Events: Tectonic Evolution of the Arctic Margins and Trans-Arctic Links with Adjacent Orogens: *Geological Society of America Special Paper 541*, p. 439–472. 10.1130/2018.2541(20)

37. ***Moynihan, D., ***Strauss, J.V.**, Padget, C.M., and Nelson, L.L., 2019, Upper part of the Windermere Supergroup in the Nadaleen River area, east-central Yukon: stratigraphy, regional correlations and implications for development of the western Laurentian margin: *Geological Society of America Bulletin*, v. 131, no. 9/10, p. 1673–1701. 10.1130/B32039.1

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Maps, Survey Reports, and Field Trip Publications

*Dartmouth Graduate/Postdoc Author **Dartmouth Undergraduate Author

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13. *Torres, L.A., **Strauss, J.V.**, Smith, L.B., and Reusch, D.N., 2024, Bedrock geology of Islesboro, Penobscot Bay, Maine: New England Intercollegiate Geological Conference Field Trip Guide, p. 268–295. https://digitalmaine.com/mgs_publications/650/

12. *Torres, L.A., Reusch, D.N., Smith, L.B., and **Strauss, J.V.**, 2024, Bedrock geology of the Islesboro quadrangle, Maine: Maine Geological Survey, Open File Map 24-14, 1:24,000 scale. https://digitalmaine.com/mgs_maps/2858

11. Bruxvoort, S.E., Rayburn, S.E., Murillo, M.A., **Stukel, C.S., McClelland, W.C., **Strauss, J.V.**, and Connors, C.C., 2024, New geologic mapping of the Philip Smith Mountains A-1 NW 7.5' quadrangle, central Brooks Range, Alaska: USGS EDMAP, Open-File Map, 1:24,000 scale.

10. *Geier IV, G.R., Lockett, A., Connors, C.D., McClelland, W.C., and **Strauss, J.V.**, 2023, Geologic map of the Table Mountain D-5 NW 7.5' quadrangle, Brooks Range, Alaska: USGS EDMAP, Open-File Map, 1:24,000 scale.

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7. *Busch, J.F., **Strauss, J.V.**, **Saylor, M.H., Allen, T.J., *Faehnrich, K., and Taylor, J.F., 2019, Preliminary observations of the Bouvette Formation at Nadaleen Mountain, Yukon (NTS 106C/2,3): *in* MacFarlane , K.E., ed., *Yukon Exploration and Geology 2018*: Yukon Geological Survey, p. 19-42. https://data.geology.gov.yk.ca

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5. **Strauss, J.V.**, Hoiland, C.W., and Nelson, L.L., 2017, Field Report: Exploring the Doonerak fenster of the central Brooks Range, Alaska, USA: *Geoscience Frontiers*, v. 8, p. 915–918. 10.1016/j.gsf.2017.02.004

4. McClelland, W.C., Colpron, M., Piepjohn, K., von Gosen, W., Ward, W., and **Strauss, J.V.**, 2015, Preliminary detrital zircon geochronology of the Neruokpuk Formation in the Barn Mountains, Yukon: *in* Yukon Exploration and Geology, K.E. MacFarlane, M.G. Nordling, and P.J. Sack (eds.), Yukon Geological Survey, p. 123–143. https://data.geology.gov.yk.ca

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Software Publications

*Dartmouth Graduate/Postdoc Author

1. *Zhang, T., Keller, C.B., and **Strauss, J.V.**, 2023, SubsidenceChron.jl. 10.17605/OSF.IO/ZW5GA

Recent Conference Abstracts (2021–2024)

*Dartmouth Graduate Presenter **Dartmouth Undergraduate Presenter ***Dartmouth Postdoc Presenter

2024:

***Barnes, B.D., Jiang, C.Z., Methley, P., Tosca, N.J., and **Strauss, J.V.**, 2024, $CaCO_3$ precipitation in ancient ferruginous oceans: Northeastern Geobiology Meeting, New Haven, CT.

***Barnes, B.D., Methley, P., Jones, P., Mehra, A., King, M., Tevis, A.A.L., Jiang, C.Z., Tosca, N.J., and **Strauss, J.V.**, 2024, Geochemical controls on abiotic carbonate sedimentation in the Paleoproterozoic Pethei Group, Northwest Territories, Canada: American Geophysical Union Annual Meeting, Washington DC.

Bradley, D., Hillenbrand, I., and **Strauss, J.V.**, 2024, The missing, near-missing, and cryptic upper crust of the Acadian Altiplano: Geological Society of America, Northeastern Section Meeting: Manchester, NH.

*Harding, R., Zhang, T., Keller, C.B., and Strauss, J.V., 2024, An updated subsidence-based age model for Ediacaran–Devonian strata in NW Canada: Northeastern Geobiology Meeting, New Haven, CT.

Kroeger, E., McClelland, W.C., Crowley, J.L., **Strauss, J.V.**, Connors, C.D., Piercey, S.J., and Colpron, M., 2024, New CA-TIMS ages for felsic volcanic rocks of the Ambler District, south-central Brooks Range: Implications for regional correlations and subduction initiation in the Cordillera: Geological Society of America Annual Meeting, Anaheim, CA, Paper No. 57-14.

McClelland, W.C., **Strauss, J.V.**, Crowley, J.L., Colpron, M., and Connors, C.D., 2024, Evaluating the age of the Old Crow plutonic suite, Yukon and northeastern Alaska, with SIMS, LA-ICPMS, ID-TIMS, and CA-TIMS analysis: Geological Society of America Annual Meeting, Paper 57-13.

Methley, P., Jiang, C.Z., **Strauss, J.V.**, and Tosca, N.J., 2024, Evaporation of seawater produces amorphous calcium-magnesium carbonate when aragonite is inhibited: European Geophysical Union Annual Meeting, Paper No. 17981.

Methley, P., Jiang, C.Z., **Strauss, J.V.**, and Tosca, N.J., 2024, Non-classical carbonate crystallization in the Tonian Draken Formation: Goldschmidt Annual Meeting, Paper No. xxx.

*Nordin, B., Getraer, A., Marshall, J., Peters, N., Schaeffer, A.J., Fosdick, J., Brown, N.D., Kelly, M., **Strauss, J.V.**, and Palucis, M., 2024, Post-glacial erosional response of a permafrost landscape across decadal to millennial timescales, Aklavik Range, Arctic Canada: Geological Society of America Annual Meeting, Anaheim, CA, Paper No. 104-2.

Strauss, J.V., Bradley, D.C., Thompson, P.J., Eusden, J.D., Meyer, E.E., Reusch, D.N., Town, C.F., McClelland, W.C., and Crowley, J.L., 2024, Detrital zircon U-Pb geochronology of the greater Central Maine Basin, New Hampshire and Southwestern Maine: Geological Society of America, Northeastern Section Meeting: Manchester, NH.

Stukel, C., and **Strauss, J.V., 2024, A record of Late Devonian (Frasnian-Famennian) reef drowning in Arctic Alaska: Northeastern Geobiology Meeting, New Haven, CT.

Thompson, P.J., **Strauss, J.V.**, and Crowley, J.L., 2024, Bedrock geologic map of the Mount Moosilauke, 7.5' Quadrangle, New Hampshire: Geological Society of America, Northeastern Section Meeting: Manchester, NH.

*Torres, L., Reusch, D.N., Smith, T., Guevara, V., Slack, J.F., Jones, P., Warburton, L., and **Strauss, J.V.**, 2024, Preliminary geologic map of the Islesboro 7.5' quadrangle with implications for the evolution of the Islesboro block, coastal Maine: Geological Society of America, Northeastern Section Meeting: Manchester, NH.

Vayda, P., Xiao, S., Crook, N., Evans, S., **Strauss, J.V.**, Smith, E., Lonsdale, M., Baillie, I., Chanchai, W., Rose, C., 2024, The first disaster taxa: vendotaenids and the Ediacaran extinction: Geological Society of America Annual Meeting, Anaheim, CA, Paper No. 103-3.

Wong, M., Rasbury, T., Kirk, J., Hatton, K., Faehnrich, K., McClelland, W.C., **Strauss, J.V.**, Odlum, M., and Donaghy, E., 2024, Understanding the Porcupine Fault System through U-Pb dating and thin-section analysis of calcite veins: American Geophysical Union Annual Meeting, Washington DC.

*Zhang, T., Harding, R., Keller, C.B., and **Strauss, J.V.**, 2024, Subsidence age-depth modeling: implications for calibrating Proterozoic–Phanerozoic paleontological and geochemical records: Northeastern Geobiology Meeting, New Haven, CT.

*Zhang, T., Keller, C.B., Harding, R., Smith, E.F., Nelson, L.L., Creveling, J.R., and **Strauss, J.V.**, 2024, Neoproterozoic to early Palezoic sedimentation history of the southern Great Basin: Geological Society of America Annual Meeting, Anaheim, CA, Paper No. 277-4.

2023:

Anderson, R.P., Wedlake, G.O., Parry, L.A., Gibson, T.M., Millikin, A.E.G., Piepjohn, K., Tosca, N.J., Rooney, A.D., and **Strauss, J.V.**, 2023, Multicellular microfossils from the ca. 930–820-million-year-old Veteranen Group of Svalbard: Palaentological Society Annual Meeting, Paper No. xxx.

***Barnes, B.D., Jiang, C.Z., Methley, P., **Strauss, J.V.**, and Tosca, N.J., 2023, $CaCO_3$ nucleation dynamics in the presence of dissolved iron: American Geophysical Union Annual Meeting, Paper No. xxx.

Bergmann, K., Gomez-Perez, I., Anderson, N.T., Cantine, M., Wilcots, J., Jost, A.B., Meyer, F., Mackey, T., Goldberg, S., Millikin, A.E.G., **Strauss, J.V.**, Rooney, A.D., and Gerdes, A., 2023, Unraveling geochemical complexity in

Neoproterozoic sedimentary successions: A comparative study of Svalbard and Oman: American Geophysical Union Annual Meeting, Paper No. xxx.

***Biasi, J., and **Strauss, J.V.**, 2023, The paleogeography of northern Alaska: knowns and unknowns: Geological Society of America, Cordilleran Section, Paper No. xxx.

Bruxvoort, S.E., Rayburn, S.E., Murillo, M.A., **Stukel, C.S., McClelland, W.C., and **Strauss, J.V.**, 2023, New geologic mapping of the Phillip Smith Mountains A-1 NW 7.5' quadrangle, Central Brooks Range, Alaska: Geological Society of America Annual Meeting, Paper No. 109-5.

Connors, C., Craddock, W., Houseknecht, D., Dumoulin, J., Lease, R., McClelland, W.C., and **Strauss, J.V.**, 2023, Paleozoic fold-and-thrust belts in Arctic Alaska and the adjacent offshore region: American Association of Petroleum Geologists International Conference and Exhibition, Paper No. xxx.

*Geier IV, G.R., Lockett, A.C., Kroeger, E.D.L., ***Fame, M.L., McClelland, W.C., Connors, C.D., and **Strauss, J.V.**, 2023, New geologic mapping of the Arctic D-1 NE and Table Mountain D-5 NW 7.5' quadrangles, northeastern Brooks Range, Alaska: Geological Society of America Annual Meeting, Paper No. 109-1.

*Getraer, A., Nordin, B.J., **Strauss, J.V.**, Palucis, M.C., 2023, Permafrost landsliding reflects ongoing response to deglacial base level fall in the Aklavik Range, NWT, Canada: American Geophysical Union Annual Meeting, Paper No. xxx.

Malik, M.H., Koeshidayatullah, A., **Strauss, J.V.**, Herlambang, A., Bello, A.M., Amao, A., and Al-Ramadan, K., 2023, Sedimentary style and related facies architecture in fault-associated mixed clastic-carbonate systems of isolated basins: An example from the Ediacaran Dhaiqa Basin in Saudi Arabia: Geological Society of America Annual Meeting, Paper No. xxx.

McClelland, W.C., Connors, C.D., **Strauss, J.V.**, Lease, R.O., Craddock, W.H., Houseknecht, D.W., Gooley, J.A., and Crowley, J.L., 2023, Linking MDA estimates, pluton emplacement and deformation in the North Slope subsurface, Alaska, with CA-TIMS: Implications for Devonian orogenesis in the Brooks Range: Geological Society of America Annual Meeting, Pittsburgh, PA, Paper No. xxx.

Methly, P., Jiang, C.Z., **Strauss, J.V.**, and Tosca, N.J., 2023, Investigating the "Dolomystery": A multifaceted study of Precambrian primary dolomite: Goldschmidt Meeting, Vienna, Austria, Paper No. xxx.

Methly, P., Jiang, C.Z., **Strauss, J.V.**, and Tosca, N.J., 2023, Evaporation of late Proterozoic seawater drives amorphous calcium magnesium carbonate production: American Geophysical Union Annual Meeting, Paper No. xxx.

*Nordin, B.J., Getraer, A., Marshall, J.A., **Strauss, J.V.**, and Palucis, M.C., 2023, A multi-chronometer approach to constrain alluvial fan formation in the Northwest Territories, Canada: American Geophysical Union Annual Meeting, Paper No. xxx.

Peters, N., Marshall, J.A., Palucis, M.P., **Strauss, J.V.**, and Meredith, P.G., Peering into the frost cracking window – physical experiments at 68N, Aklavik Range, Canada: American Geophysical Union Annual Meeting, Paper No. xxx.

Sehra, S., Geier IV, G., Lockett, A., Galloway, P., McClelland, W.C., Connors, C., and **Strauss, J.V., 2023, Stratigraphy and provenance of the Keikiktuk Conglomerate and Associated Lower Carboniferous Units in the Northeastern Brooks Range of Alaska: Geological Society of America Cordilleran Section, Paper No. xxx.

Strauss, J.V., 2023, On the origins and travels of Arctic Alaska: Cordilleran Tectonics Workshop, Whitehorse, Yukon.

Trower, E., Mizrahi, N., Yager, J., Corsetti, F., Fischer, W., Karim, T., Shapiro, R., Simpson, C., Sperling, E.A., **Strauss, J.V.**, Tang, Q., West, J., Xiao, S., and Zawaski, M., 2023, Examining the Phanerozoic record of seawater dissolved silica concentrations via Si isotopes of sponge spicules: American Geophysical Union Ocean Sciences Meeting, Paper No. xxx.

Vayda, P., Xiao, S., Keller, N., Lonsdale, M., **Strauss, J.V.**, and Hagen, A., 2023, Was Earth's oldest mineral collector a Cnidarian? Morphological, mineralogical, and microstructural analysis of *Salterella*: Geological Society of America Annual Meeting, Paper No. xxx

2022:

Anderson, R.P., Wedlake, G.O., Gibson, T., Millikin, A., Piepjohn, K., Tosca, N.J., Rooney, A.D., and **Strauss, J.V.**, 2022, New multicellular microfossil eukaryotes from the ca. 950–820 Ma Veteranen Group of Svalbard: Geological Society of America Annual Meeting, Paper No. 381462.

Clemente, J., Ostrander, C., Nielsen, S.G., Stockey, R.G., **Strauss, J.V.**, and Sperling, E.A., 2022, Timing Phanerozoic deep ocean oxygenation using thallium isotopes: American Geophysical Union Annual Meeting, Paper No. xx.

Counts, J., Griffis, N., Maloof, A.C., Capion, A., Dumoulin, J., Gooley, J., Connors, C., and **Strauss, J.V.**, 2022, A new $\delta^{13}C_{carb}$ and $\delta^{18}O_{carb}$ record from the Carboniferous of Alaska: Geological Society of America Annual Meeting, Paper No. 378699.

*Faehnrich, K., McClelland, W.C., Webb, L.E., Rasbury, E.T., Colpron, M., and **Strauss, J.V.**, 2022, Displacement history along the Porcupine Shear Zone and its role in the opening of the Canada Basin: International Conference on Arctic Margins: Ottawa, Canada.

*Geier IV, G.R., Lockett, A., McClelland, W.C., Connors, C., ***Fame, M., and **Strauss, J.V.**, 2022, New insights into Devonian–Carboniferous geological relationships in the northeastern Brooks Range of Alaska: Geological Society of America Annual Meeting, Paper No. 377521.

Hernandez, M., Cohen, P., *Busch, J.F., and **Strauss, J.V.**, 2022, Enigmatic phosphatic tubular fossils from the early-middle Paleozoic Bouvette Formation, Yukon Territory, Canada: Geological Society of America Annual Meeting, Paper No. 381749.

Koch, M.M., McClelland, W.C., Gilotti, J.A., Kosminska, K., *Faehnrich, K., and **Strauss, J.V.**, 2022, A Paleozoic accretion history: Igneous and detrital zircon signatures of the Kulutingwak and Danish River formations in the Yelverton Inlet-Phillips Inlet region, Ellesmere Island, Nunavut, Canada: European Geophysical Union, Paper No. 285.

Lockett, A., *Geier IV, G.R., ***Fame, M., Kroeger, E., Nelson, L.N., Connors, C., **Strauss, J.V.**, and McClelland, W.C., 2022, New geologic mapping in the Arctic D-1 SW and NW 7.5' quadrangles, northeastern Brooks Range, Alaska: Geological Society of America Annual Meeting, Paper No. 378097.

Malik, M.H., Koeshidayatullah, A., Herlambang, A., **Strauss, J.V.**, and Al-Ramadan, K., 2022, Ediacaran of Saudi Arabia: Myth, Facts, and Potential: AAPG Middle East Oil, Gas and Geosciences Show, Abstract No. 2023-A-620-AAPG.

***Mehra, A., *Busch, J.F., *Faehnrich, K., Jin, J., Leslie, S.A., Melchin, M., and **Strauss, J.V.**, 2022, A change in sedimentation patterns in a Paleozoic reef revealed via three-dimensional reconstruction: Geological Society of America Annual Meeting, Paper No. 382158.

McClelland, W.C., Kosminska, K., Gilotti, J.A., *Faehnrich, K., **Strauss, J.V.**, Colpron, M., 2022, The role of transcurrent structures in the Paleozoic evolution of the northern Laurentian margin: Geological Society of America Annual Meeting, Paper No. 377537.

Palucis, M.C., Marshall, J.A., and **Strauss, J.V.**, 2022, Sediment production and transport processes in an Arctic watershed undergoing climate change: European Geophysical Union, Paper No. 10812.

Palucis, M.C., Marshall, J.A., and **Strauss, J.V.**, 2022, Sediment production and transport processes in an Arctic watershed undergoing climate change: Geological Society of America Penrose Conference.

Pierce, J.S., Evans, D.A., Youbi, N., **Strauss, J.V.**, and Keller, C.B., 2022, Significant Ediacaran paleolatitude changes of West African Craton revealed by magnetostratigraphy of the Ouarzazate Group, Bou Azzer inlier, Morocco: American Geophysical Union Annual Meeting, Paper No. xxx.

Reusch, D., and **Strauss J.V.**, 2022, Update on detrital zircon U/Pb geochronology from Proterozoic and early Paleozoic rocks of the Penobscot Bay inlier, Maine: Geological Society of America Northeastern Meeting, Paper No. xx.

Vayda, P., Xiao, S., Keller, N., Evans, S.D., **Strauss, J.V.**, and Smith, E.F., 2022, Measuring Up: How does the early Cambrian small shelly fossil *Salterella* fit in phylogenetic space?: Geological Society of America Annual Meeting, Paper No. 378480.

*Zhang, T., Smith, E.F., Eyster, A., **Strauss, J.V.**, Mixed carbonate-clastic sedimentation in the late Ediacaran Reed Dolomite: Geological Society of America Annual Meeting, Paper No. 376812.

2021:

*Busch, J.F., Hodgin, E.B., Ahm, A.-S., Husson, J.M., Macdonald, F.A., Bergmann, K.D., Higgins, J.A., and **Strauss, J.V.**, 2021, Ediacaran Shuram carbon isotope excursion as a global oceanographic event: NE Geobiology Meeting, Dartmouth College.

*Faehnrich, K., McClelland, W.C., Webb, L.E., Rasbury, E.T., Colpron, M., and **Strauss, J.V.**, 2021, Thermochronological evidence for Cretaceous strike-slip displacement on the Porcupine shear zone, Alaska and Yukon: Geological Society of America Annual Meeting, Paper No. 199-6.

***Gibson, T., Millikin, A.E.G., Anderson, R., Piepjohn, K., McClelland, W.C., Crowley, J.L., Rooney, A., and **Strauss, J.V.**, 2021, Synthesis of the lower Hecla Hoek succession across eastern Svalbard: Early Tonian magmatism and basin formation along the northeastern margin of Laurentia: Geological Society of America Annual meeting, Paper No. 227-9.

Hernandez, M., *Busch, J.F., **Strauss, J.V.**, and Cohen, P., Enigmatic phosphatic tubular fossils from the early-middle Paleozoic Bouvette Formation, Yukon, Canada: Geological Society of America Annual Meeting, Paper No. 123-1.

Kannam, P., ***Mehra, A., Jackson, B.P., Sperling, E.A., Tosca, N.J., Clayton, K., Fraser, T., Melchin, M., and **Strauss, J.V., 2021, Multiple host phases of mercury in the early Paleozoic Road River Group of northern Yukon, Canada: Geological Society of America Annual Meeting, Paper No. 161-10.

Meyer, F., Essack, Z., Jost, A., **Strauss, J.V.**, and Bergmann, K., 2021, Carbonate clumped isotope record of the Bitter Springs Anomaly from Svalbard: Geological Society of America Annual Meeting, Paper No. 87-5.

Millikin, A.E.G., **Strauss, J.V.**, Halverson, G.P., Bergmann, K., Tosca, N.J., Gibson, T.M., Anderson, R.P., and Rooney, A.D., 2021, New Re-Os ages from the Neoproterozoic Hecla Hoek Succession: Svalbard, Norway: Goldschmidt Annual Meeting, Lyon, France.

Millikin, A.E.G., **Strauss, J.V.**, Halverson, G.P., Bergmann, K., Tosca, N.J., and Rooney, A.D., 2021, New Re-Os ages from the Neoproterozoic Hecla Hoek Succession: Svalbard, Norway: Geological Society of America Annual Meeting, Paper No. 76-5.

Mughai, S., Wedlake, G., ***Gibson, T.M., Milliken, A.E.G., **Strauss, J.V.**, Rooney, A.D., Tosca, N.J., Bergmann, K., and Anderson, R.P., 2021, Re-exploring the exceptionally preserved fossils of the Tonian Svanbergfjellet Formation of Svalbard to understand the rise of eukaryotes: Palaeontological Association Annual Meeting.

Palucis, M.C., Morgan, A.M., **Strauss, J.V.**, Rivera-Hernandez, F., Marshall, J.A., Menio, E., and **Miller, R., 2021, Someone who likes stream deposits?: An alluvial fan: Lunar and Planetary Science Conference.

Wedlake, G., Mughai, S., ***Gibson, T.M., Milliken, A.E.G., **Strauss, J.V.**, Rooney, A.D., Tosca, N.J., and Anderson, R.P., 2021, Microfossils from the ~850 million-year-old Veteranen Group of Svalbard: insights into the nascent eukaryotic world: Palaentonological Association Annual Meeting.

*Zhang, T., Keller, C.B., Halverson, G.P., Hoggard, M.J., Rooney, A.D., Bergmann, K.D., and **Strauss, J.V.**, 2021, A Bayesian framework for subsidence modeling in sedimentary basins: implications for the Precambrian: Geological Society of America Annual Meeting, Paper No. 214-2.

Awarded Research Grants

2024 NASA Exobiology. *Investigating spatial and temporal variability of Earth's oldest animal communities within the Canadian Cordillera*. S. Evans (PI, Florida State University) and **J.V. Strauss** (Co-I, Dartmouth), $372,843 Dartmouth, $xxx,xxx total.

2023 NSF Tectonics, EAR-2314532. *Collaborative Research: The role of the Porcupine fault system in the Mesozoic opening of the Arctic Ocean*. **J.V. Strauss** (Lead PI, Dartmouth), W.C. McClelland (Co-PI, University of Iowa), Margaret Odlum (Co-PI, University of Nevada Las Vegas), and Troy Rasbury (Co-PI, Stony Brook University), $247,428 Dartmouth, $875,198 total.

2023 NSF Sedimentary Geology and Paleobiology, EAR-2233726. *Collaborative Research: RUI: Exploring early metazoan reef evolution through a multi-scale approach*. A. Mehra and **J.V. Strauss** (Co-PI, Dartmouth) and P. Cohen (Co-PI, Williams College), $390,778 Dartmouth, $496,523 total. Re-budgeted to accommodate PI Mehra's transfer to University of Washington.

2022 USGS EDMAP Program. *Bedrock geological mapping of the northern Table Mountain D-5 quadrangle, Brooks Range, Alaska.* **J.V. Strauss** (PI, Dartmouth), $35,000.

2021 NSF Polar Programs, EAR-2116471. *Collaborative Research: Watershed-scale geomorphic response to climate change in the Aklavik Range, NWT (Canada)*. M. Palucis and **J.V. Strauss** (PI and Co-PI, Dartmouth) and J. Marshall (Co-PI, University of Arkansas), $520,231 Dartmouth, $776,798 total.

2021 Alfred P. Sloan Foundation Fellowship. *Exploring archives of non-skeletal carbonate sedimentation.* **J.V. Strauss** (PI, Dartmouth), $75,000.

2021 USGS EDMAP Program. *Bedrock geological mapping of the northeastern Arctic D-1 quadrangle, Brooks Range, Alaska, with implications for the amalgamation of Arctic Alaska.* **J.V. Strauss** (PI, Dartmouth), $25,000.

2020 NSF Frontiers in Earth Sciences, EAR-2021176. *Collaborative Research: Co-evolution of Earth and life across the Proterozoic–Phanerozoic transition: Integrated perspectives from outcrop and drill core.* E.F. Smith (Lead PI, Johns Hopkins University), **J.V. Strauss** and C.B. Keller **(**PI and Co-PI, Dartmouth**)**, K. Lau (PI, University of Wyoming), A.D. Rooney and D.A. Evans (PI and Co-PI, Yale University), and S. Xiao (PI, Virginia Tech), $739,430 Dartmouth, $3,000,000 total.

2020 NSF Tectonics, EAR-1929593. *Collaborative Research: An Alaskan perspective on middle Paleozoic terrane translation, contraction, and subduction initiation in northwestern Laurentia.* **J.V. Strauss (**Lead PI, Dartmouth**)**, W.C. McClelland (Co-PI, University of Iowa), and C. Connors (Co-PI, Washington and Lee University), $249,582 Dartmouth, $613,948 total.

2020 Dartmouth College Neukom CompX. *Acquisition of unmanned aerial vehicles for training the next generation of field scientists*. A. Mehra and **J.V. Strauss** (Dartmouth), $39,998.

2019 NSF Low-Temperature Geochemistry and Geobiology, EAR-1929593. *Collaborative Research: Developing a multi-proxy approach for reconstructing deep-time silicate weathering*. A.D. Rooney (Lead PI, Yale University) and **J.V. Strauss (**Co-PI, Dartmouth**)**, $246,900 Dartmouth, $525,040 total.

2018 NSF MRI, EAR-1828099. *MRI: Acquisition of an Isotope Ratio Mass Spectrometer (IRMS) to enable interdisciplinary research at Dartmouth and beyond*. C. Hicks Pries (Lead PI, Dartmouth), W. Leavitt (Co-PI, Dartmouth), and **J.V. Strauss** (Co-PI, Dartmouth), $483,128 total.

2018 NASA Solar Systems Workings Program, *How much water does it take to build a fan under a "cold and icy" Mars climate scenario?*. M. Palucis (Lead PI, Dartmouth) and **J.V. Strauss** (Co-I, Dartmouth), $343,160 total.

2018 National Geographic Society, *The Neoproterozoic of Svalbard: Critical archives for ancient seawater chemistry and animal evolution*. **J.V. Strauss** (PI, Dartmouth), $30,000 total.

2018 American Chemical Society–Petroleum Research Fund–Doctoral New Investigator, *Neoproterozoic Analogs for Mg-silicate-bearing Petroleum Basins*. **J.V. Strauss (**PI, Dartmouth**)**, $110,000.

2017 NSF Tectonics, EAR-1650152. *Collaborative Research: Displacement history of the Pearya terrane – evaluating a strike-slip origin for the Canadian Arctic margin*. J.A. Gilottti (Lead PI, University of Iowa), W.C. McClelland (Co-PI, University of Iowa), **J.V. Strauss (**Co-PI, Dartmouth**)**, $141,662 Dartmouth, $415,040 total.

2017 Research Council of Norway Arctic Field Grant, *Neoproterozoic stratigraphy and provenance of Wedel Jarlsberg Land, Southwest terrane, Spitsbergen*. V. Wala (Graduate Student, Dartmouth), **J.V. Strauss** (Dartmouth), $9,100.

2016 NSF Tectonics, EAR-1624131. *Collaborative Research: The Kaltag-Porcupine fault system of northern Yukon: Evaluating large-scale terrane displacement in the Arctic and beyond*. **J.V. Strauss (**Lead PI, Dartmouth**)**, W.C. McClelland (Co-PI, University of Iowa), $241,522 Dartmouth, $414,709 total.

2016 G. Norman Albree Trust Fund, *2016 Albree Trust Grant Proposal: Earth Science Micro- and Macro-photography*. **J.V. Strauss** (Lead PI, Dartmouth), $10,000.

2015 GSA Graduate Student Research Grant, **J.V. Strauss** (Graduate Student, Harvard), $1,900.

2014 GSA Graduate Student Research Grant, **J.V. Strauss** (Graduate Student, Harvard), $900.

2012 NSF Graduate Research Fellowship, *An integrated study of Cambrian stratigraphy in Arctic Alaska and Canada*. **J.V. Strauss** (Graduate Student, Harvard), $96,000.

Supervised and Co-Supervised Undergraduate Theses

Dartmouth College, Department of Earth Sciences, Hanover, NH

Caitlin Stukel – *Stratigraphy and provenance of the Beaucoup Formation in the Brooks Range, Alaska.* grad. June 2024
Parker Jones – *The geologic history of the Seven Hundred Acre Island Formation in Penobscot Bay, ME* grad. June 2024
Shaalin Sehra – *Stratigraphy and provenance of Carboniferous strata in the northeastern Brooks Range of Alaska* grad. June 2023
Peter Kannam – *Early Paleozoic deep-marine marine mercury (Hg) deposition* grad. June 2022
Rebecca Miller – *Compilation bedrock geology along the Alaska–Yukon border from the Arctic Ocean to the Yukon River* grad. June 2020
Christian Trejo – *Age and significance of early Paleozoic unnamed chert units in the Zavkhan Terrane of Mongolia* grad. June 2020
Charlotte Nutt – *Middle to late Paleozoic stratigraphy and provenance of the Porcupine terrane: Implications for the tectonic history of western North America* grad. June 2019
Maxwell Saylor – *A sedimentological and paleontological study of the Cambrian–Devonian Bouvette Formation at Nadaleen Mountain, Yukon, Canada* grad. June 2019
Caleb "Forrest" Town – *U-Pb geochronology of the Moat Volcanics, White Mountains, New Hampshire* grad. June 2018
Joe Malinowski – *The basal Road River Group of Yukon, Canada: New insights into the Cambrian–Ordovician carbon cycle* grad. June 2018
Jack Taylor – *Sedimentological and chemostratigraphic analysis of Ediacaran carbonate platforms in the Canadian Cordillera* grad. June 2018
Joshua Perez – *Age, Geochemistry, and Significance of Middle Paleozoic Volcanics in the Brooks Range* grad. June 2017
Peter Mamrol – *Age and Significance of the Cambrian–Ordovician Dempster Volcanics, Yukon, Canada* grad. June 2016

Harvard University, Department of Earth and Planetary Sciences, Cambridge, MA
Lyle Nelson – *Provenance of Ediacaran–Cambrian strata of the North Slope of Alaska* grad. May 2015
Esther Kennedy – *The sedimentology and chemostratigraphy of the Jones Ridge Limestone, AK* grad. May 2013

Supervised and Co-Supervised Graduate Theses

(*indicates main supervisor)

Dartmouth College, Department of Earth Sciences, Hanover, NH
*George Geier – PhD supervisor in progress
*Alexander Getraer – PhD supervisor (co-advised with Marisa Palucis) in progress
*Reina Harding – PhD supervisor (co-advised with Brenhin Keller) in progress
Olivia Moehl – MSc committee member in progress
*Bailey Nordin – PhD supervisor (co-advised with Marisa Palucis) in progress
*Tianran Zhang – PhD supervisor in progress
Laurie Zielinski – PhD committee member in progress
*Luis Torres – MSc supervisor grad. Oct. 2024
Matthew Maclay – MSc committee member grad. Sept. 2023
*Karol Faehnrich – PhD supervisor grad. June 2023
*James Busch – PhD supervisor grad. June 2022
Gailin Pease – MSc committee member grad. Dec 2021
Danielle Niu – PhD committee member grad. Dec 2021
Alice Zhou – MSc committee member grad. May 2019
*Virginia Wala – MSc supervisor grad. May 2019
Mackenzie Marti – MSc committee member grad. Jan 2018
Helen Doyle – MSc committee member grad. July 2016

King Fahd University of Petroleum and Minerals, Dhahran, Kingdom of Saudi Arabia
Muhammad Hammad Malik – PhD external examiner grad. Aug. 2024

Purdue University, Purdue, IN
Brandon Matthew Keough – PhD external examiner in progress

University of Iowa, Department of Earth and Environment, Iowa City, IA
Samson Bruxvoort – MSc external examiner grad. July 2024
Alec Lockett – MSc external examiner grad. July 2023
Matthew Trembath – MSc external examiner grad. July 2020

Yale University, Department of Earth and Planetary Sciences, New Haven, CT
Alexie Millikin – PhD external examiner in progress

Université Pierre et Marie Curie, Institut des Sciences de la Terre, Paris, France
Nicolas Lemonnier – PhD external examiner grad. Dec. 2015

Supervised and Co-Supervised Postdoctoral Scholars

Dartmouth College, Department of Earth Sciences, Hanover, NH
Ben Davis Barnes in progress
Erin Donaghy now at University of Nevada at Las Vegas
Joseph Biasi now at University of Wyoming
Akshay Mehra now at University of Washington
Timothy Gibson now at Yale University

Courses Taught

Dartmouth College, Department of Earth Sciences, Hanover, NH
Earth Sciences 2: *Evolution of Earth and Life*
Earth Sciences 38: *Sedimentary Systems*
Earth Sciences 58/158: *Sedimentary Petrology and Stratigraphy*
Earth Sciences 45/46/47: *The Stretch*
Earth Sciences 201: *Fundamentals and Pedagogy in Earth Sciences*
Earth Sciences 272: *Topics in Historical Geobiology*

Professional Service

Editorial Review Board
Geology (2021-in progress)

Journal Reviewer
Chemical Geology
Geology
Geosphere
Geological Society of America Bulletin
Journal of the Geological Society of London
Lithosphere
Nature
Nature Geoscience
Norwegian Journal of Geology
Palaeogeography, Palaeoclimatology, and Paleoecology
Precambrian Research
Science
Science Advances
Sedimentology
Sedimentary Geology

Ad hoc Panel Reviewer and Panelist
NASA Exobiology
NSF Low-Temperature Geochemistry and Geobiology
NSF Tectonics
NSF Sedimentary Geology and Paleobiology
ACS Petroleum Research Fund

Conference Session Convener
2023 GSA NE Meeting: *Appalachian vestiges: Geology of the rocks in the Northern Appalachians that are almost gone*
2022 GSA Annual Meeting: *The geological evolution of northern Alaska: A session in honor of Charles "Gil" Mull*
2022 GSA Annual Meeting: *Cambrian–Ordovician Faunas and Events: A session in honor of John F. Taylor and John E. Repetski*
2022 GSA Annual Meeting Pardee Symposium: *The Proterozoic–Phanerozoic Transition: Laying the Foundation for the Modern Earth System*
2020 GSA Annual Meeting: *Precambrian Basin Analysis*
2019 AGU Annual Meeting: *The North Atlantic Realm from Neoproterozoic to Cenozoic: Orogens Old and New*
2019 AGU Chapman Meeting: *Subduction-related Magmatism in the Arctic*
2019 GSA NE Meeting: *Detrital mineral constraints on Appalachian tectonics*
2017 GSA Annual Meeting: *New perspectives on Cordilleran tectonics, paleogeography, and metallogeny*
2017 GSA Annual Meeting: *Circum-Arctic structural events: tectonic evolution of the Arctic margins and trans-Arctic links with adjacent orogens*
2016 AGU Annual Meeting: *Interpretations of stable carbon isotope records in sedimentary systems*

2016 GACMAC Annual Meeting: *Proterozoic Basins of Northern Laurentia*
2015 GACMAC-AGU Joint Session: *The Neoproterozoic-Paleozoic Earth system: records from an Earth in transition*
2015 GSA Annual Meeting: *Precambrian Geology of the North American Cordillera: An Exploration of New Developments in Laurentia's Ancient History*

Professional Societies
Alaska Geological Society
International Association of Sedimentologists
American Geophysical Union
Geological and Mineralogical Association of Canada
American Association of Petroleum Geologists
Society for Sedimentary Geology (SEPM)
Geological Society of America
American Alpine Club

College/Departmental Committee Work

Departmental Geophysics Search Committee, Chair	2024
Departmental Curriculum Committee, Member	2023-present
Departmental Prerequisite Committee, Member	2022-present
Departmental Website Committee, Chair	2020-present
Departmental Seminar Organizer	2019-2020
Departmental Inclusion, Diversity, and Equity Committee	2019-2020