

# 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

## Teaching and Work 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**  
*Agouon Institute Geobiology Postdoctoral Scholar* July 2015 - Dec. 2015

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

**Princeton University, Department of Geosciences, Princeton, NJ**  
*Lab Technician, Field Assistant – Dr. Adam Maloof* June. 2007 - Dec. 2007

**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 Agouon 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

## Publications

\*Dartmouth Graduate/Postdoc Author    \*\*Dartmouth Undergraduate Author    \*\*\*Joint 1<sup>st</sup> Author

**In Preparation:**

\*Barnes, B.D., Jiang, C.Z., Methley, P., **Strauss, J.V.**, and Tosca, N.J., *in prep.*, CaCO<sub>3</sub> precipitation kinetics and polymorphism in ferruginous seawater: *Earth and Planetary Science Letters*, v. xx, p. xxx–xxx.

\*Biasi, J., and **Strauss, J.V.**, *in review*, A review of paleomagnetic studies from northern Alaska and Yukon: *Canadian Journal of Earth Sciences*, v. xx, 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 prep.*, 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.

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., Linnemann, U., Gartner, A., Ovtcharova, M., and Wotzlaw, J.F., *in prep.*, Magnetostratigraphic resolution of the late Ediacaran paleomagnetic enigma: *Nature Geoscience*, v. xxx, p. xxx–xxx.

**In Review:**

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.

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., *in review*, The Svanbergfjellet Formation: Viewing the nascent eukaryotic world: *Journal of the Geological Society – Lagerstätten Series*, v. xxx, p. xxx–xxx.

Taylor, J.F., **Strauss, J.V.**, and Repetski, J.E., *in review*, 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 Palaeontological Memoirs*, v. xxx, p. xxx–xxx.

**2024:**

84. 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.

83. 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. xx, p. xxx–xxx.

82. 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.

81. 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., Hendersson, 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., Schoepfer, 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.

### 2023:

80. Bazarnik, J., Kósmínska, 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.

79. \*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.

78. 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.

77. \*Faehnrich, K., McClelland, W.C., Webb, L., Kósmínska, 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.

76. 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.

75. 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.

74. 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.

73. 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.

72. **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.

71. \*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.

### 2022:

70. \*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.

69. 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.

68. Koch, M.M., \*Faehnrich, K., McClelland, W.C., Crowley, J.L., Melchin, M.J., Beranek, L.P., and **Strauss, J.V.**, 2022, 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. 59, p. 639–659.
67. 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.
66. 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.
- 2021:**
65. 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.
64. \*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.
63. \*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.
62. 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.
61. \*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.
60. \*Gibson, T.M., Millikin, A.E.G., Anderson, R.P., Myrow, P.M., Rooney, A.D., and **Strauss, J.V.**, 2021, Tonian deltaic sedimentation on the edge of Laurentia: The Veteranen Group of northeastern Spitsbergen, Svalbard: *Sedimentary Geology*, v. 426, p. 106011.
59. \*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., Guilbaud, 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.
58. 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.

57. Roest-Ellis, S., **Strauss, J.V.**, and Tosca, N.J., 2021, Experimental constraints on non-skeletal CaCO<sub>3</sub> precipitation from mid-Neoproterozoic seawater: *Geology*, v. 49, p. 561–565.

56. 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.

55. Trower, E.J., **Strauss, J.V.**, Sperling, E.A., and Fischer, W.W., 2021, Isotopic analyses of Ordovician–Silurian siliceous skeletons indicate silica-depleted Paleozoic oceans: *Geobiology*, v. 19, p. 460–472.

54. \*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.

#### 2020:

53. \*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.

52. Laakso, T.A., **Strauss, J.V.**, and Peterson, K.J., 2020, Herbivory and its effect on Phanerozoic oxygen concentrations: *Geology*, v. 48, p. 410–414.

51. Rooney, A.D., Cantine, M.D., Bergmann, K.D., Gómez-Pérez, I., Baloushi, B., Boag, T.H., \*Busch, J.F., Sperling, E.A., and **Strauss, J.V.**, 2020, Calibrating the co-evolution of Ediacaran life and environment: *Proceedings of the National Academy of Sciences*, v. 117, p. 16824–16830.

50. **Strauss, J.V.** and Tosca, N.J., 2020, Mineralogical constraints on Neoproterozoic pCO<sub>2</sub> and marine carbonate chemistry: *Geology*, v. 48, p. 599–603.

49. **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.

#### 2019:

48. 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.

47. Bazarnik, J., Majka, J., McClelland, W.C., **Strauss, J.V.**, Kósmínska, K., Piepjohn, K., Elvevold, S., Czupyt, Z., and Mikuš, T., 2019, U-Pb zircon dating of metaigneous rocks from the Nordbreen Nappe of Svalbard’s Ny-Friesland terrane suggests their affinity to Northeast Greenland: *Terra Nova*, v. 31, p. 518-526.

46. \*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.

45. 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.

44. Johnson, B.G., **Strauss, J. V.**, Taylor, J. F., Ward, W. P., Colpron, M., McClelland, W. C., Toro, J., 2019, Geochronology, paleontology, and geochemistry from the Whale Mountain allochthon of the northeastern Brooks Range, Alaska, 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.

43. \*\*\*Moynihan, D., \*\*\*Strauss, J.V., Padgett, 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.

42. Nelson, L.L., Strauss, J.V., Crockford, P.W., Cox, G.M., Johnson, B.G., Ward, W., Colpron, M., McClelland, W.C., and Macdonald, F.A., 2019, Neodymium isotopic and geochemical constraints on the provenance of pre-Mississippian sedimentary rocks in the North Slope of Yukon and Alaska, 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. 573–592.

41. Strauss, J.V., Macdonald, F.A., and McClelland, W.C., 2019a, Pre-Mississippian stratigraphy and provenance of the North Slope subterranean of Arctic Alaska I: Platformal rocks of the northeastern Brooks Range and their significance in circum-Arctic evolution, 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. 493–524.

40. Strauss, J.V., Johnson, B.G., Colpron, M., Nelson, L.L., \*\*Perez, J., Benowitz, J.A., Ward, W., and McClelland, W.C., 2019b, Pre-Mississippian stratigraphy and provenance of the North Slope subterranean of Arctic Alaska II: Basinal rocks of the northeastern Brooks Range and their significance in circum-Arctic evolution, 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. 525–572.

39. Ward, W.P., Strauss, J.V., Johnson, B.G., McClelland, W.C., Colpron, M., von Gosen, W., Piepjohn, K., Cobble, M., Crockford, P.W., and Landis, J., 2019, Age, geochemistry and significance of Devonian felsic magmatism in the North Slope subterranean, 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. 593–618.

#### 2018:

38. Fraser, T.A., Crawford, I., Gadd, M.G., Henderson, K., Layton-Matthews, D., Melchin, M., Peter, J.M., Sack, P.J., Sperling, E., and Strauss, J.V., 2018, An overview of shale studies in Yukon during the 2017 field season, in MacFarlane, K.E., ed., *Yukon Exploration and Geology 2017*: Yukon Geological Survey, p. 37–45.

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### **Recent Conference Abstracts (2020–2024)**

\*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<sub>3</sub> 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 Paleozoic 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: Palaeontological Society Annual Meeting, Paper No. xxx.

\*\*\*Barnes, B.D., Jiang, C.Z., Methley, P., **Strauss, J.V.**, and Tosca, N.J., 2023, CaCO<sub>3</sub> 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. xxx.

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. xxx.

\*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.

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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.

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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  $\delta^{13}\text{C}_{\text{carb}}$  and  $\delta^{18}\text{O}_{\text{carb}}$  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.
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- 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.
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- 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: Palaeontological 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.

**2020:**

Boag, T.H., \*Busch, J.F., Sickmann, Z.T., **Strauss, J.V.**, and Sperling, E.A., 2020, Integrated chemostratigraphy, geochronology, and paleontology of Ediacaran deposits from the Cariboo Mountains, British Columbia, Canada: Geological Society of America Annual Meeting, v. 52, no. 6.

- \*Busch, J.F., Boag, T.H., Sperling, E.A., Higgins, J.A., and **Strauss, J.V.**, 2020, Chemostratigraphy of the Ediacaran Gametrail Formation across a shelf-slope transect in the Wernecke Mountains, Yukon, Canada: Geological and Mineralogical Society of Canada Annual Meeting, Paper No. 55890.
- \*Busch, J.F., Boag, T.H., Sperling, E.A., Higgins, J.A., and **Strauss, J.V.**, 2020, Integrated litho-, chemo-, and sequence-stratigraphy of the Ediacaran Gametrail Formation across a shelf-slope transect in the Wernecke Mountains, Yukon, Canada: Geological Society of America Annual Meeting, v. 52, no. 6.
- \*Faehnrich, K., McClelland, W.C., Colpron, M., Nutt, C.L., Trembath, M., Miller, R.S., and **Strauss, J.V.**, 2020, Stratigraphic architecture of the Porcupine shear zone, Yukon and Alaska, and its significance in the evolution of northern Laurentia: Cordilleran Tectonics Workshop, Anchorage, Alaska.
- \*\*\*Gibson, T.M., Millikin, A.E.G., Anderson, R.P., Myrow, P.M., Rooney, A.D., and **Strauss, J.V.**, 2020, Sedimentology, stratigraphy, and age of the Tonian Veteranen Group, northeastern Spitsbergen, Svalbard: Geological Society of America Annual Meeting, v. 52, no. 6.
- Haines, K., Kinney, S.T., MacLennan, S.A., Setera, J., Schoene, B., VanTongeren, J.A., **Strauss, J.V.**, Hart, A., \*\*Town, C.F., Bradley, D.C., and Olsen, P.E., 2020, Zircon U-Pb constraints on volcanic-plutonic connections and conundrums in the White Mountain Batholith: Geological Society of America Annual Meeting, v. 52, no. 6.
- \*\*\*Mehra, A., Keller, C.B., \*\*Zhang, T., Tosca, N.J., McLennan, S.M., Farrell, U.C., Sperling, E.A., and **Strauss, J.V.**, 2020, Processing data and incorporating uncertainties in large geochemical compilations: Geological Society of America Annual Meeting, v. 52, no. 6.
- Menio, E., Cothren, J., Marshall, J.A., Palucis, M., and **Strauss, J.V.**, Arctic landscapes and processes at 68N: Digital surface characterization across scales and time in the Mackenzie Delta region, Canada: European Geophysical Union Annual Meeting, Vienna.
- \*\*Miller, R., \*Faehnrich, K., Colpron, M., McClelland, W.C., Johnson, B., Jones, J., and **Strauss, J.V.**, 2020, Compilation of bedrock geology along the Alaska–Yukon border from the Arctic Ocean to the Yukon River: Cordilleran Tectonics Workshop, Anchorage, AK.
- Sperling, E.A., Melchin, M.J., Fraser, T.A., 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., Torres Plaza, S., Rodewald, B.M., Rooney, A.D., Tecklenburg, S., Vogel, J., Planavsky, N.J., and **Strauss, J.V.**, 2020, An exceptional record of early- to mid-Paleozoic redox change from the Road River Group, Yukon, Canada: Geological Society of America Annual Meeting, v. 52, no. 6.
- 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: Geological and Mineralogical Society of Canada Annual Meeting, Paper No. 55893.
- Trembath, M., \*Faehnrich, K., Gilotti, J.A., **Strauss, J.V.**, and McClelland, W.C., 2020, Structural characterization of the Porcupine Shear Zone in Arctic Alaska: Cordilleran Tectonics Workshop, Anchorage, Alaska.
- Trower, E. J., **Strauss, J.V.**, Sperling, E.A., and Fischer, W.W., 2020, Si isotopic analyses of Ordovician–Silurian sponge spicules and radiolarians indicate silica-depleted Paleozoic oceans: Geological Society of America Annual Meeting, v. 52, Paper No. 6.

### Awarded Research Grants

- 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. Gilotti (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 Albee Trust Fund, *2016 Albee 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 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



	<b>Justin V. Strauss</b> 17
*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
*Luis Torres – MSc supervisor	in progress
*Tianran Zhang – PhD supervisor	in progress
Laurie Zielinski – PhD committee member	in progress
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 in progress

**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**

Erin Donaghy in progress

Ben Davis Barnes in progress

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 (2021-2024)

**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 Paleocology

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 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