

# 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**  
*Assistant Professor* Jan. 2016–present

**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**  
*Field Assistant – Dr. Francis Macdonald* May 2008; July 2009 - Aug. 2009

**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

2021 Alfred P. Sloan Foundation Fellow  
2018 National Geographic Explorer  
2018 American Chemical Society Doctoral New Investigator Award  
2015 Agouon Institute Geobiology Postdoctoral Fellowship  
2015 Geological Society of America Student Research Grant  
2014 Geological Society of America 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 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  
2005 Patricia J. Buster Scholarship for Undergraduate Research  
2004 Patricia J. Buster Scholarship for Undergraduate Research

## Publications

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

**In Review:**

67. 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., *in review*, The Ca and Mg isotope record of the Cryogenian Trezona carbon isotope excursion: *Earth and Planetary Science Letters*, v. xx, p. xx.
66. \*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.**, *in review*, Ediacaran Shuram carbon isotope excursion as a global oceanographic event: *Earth and Planetary Science Letters*, v. xx, p. xx.
65. Farrell, U.C., **SGP Collaborative Team**, Planavsky, N.J., Lau, K.V., Johnston, D.J., and Sperling, E.A., *in review*, The Sedimentary Geochemistry and Paleoenvironments (SGP) Project: *Geobiology*, v. xx, p. xx.
64. Jost, A.B., Mackey, T.J., Wilcots, J., Creveling, J.R., Fairchild, I.J., **Strauss, J.V.**, and Bergmann, K.D., *in review*, Interpreting diagenesis in carbonate clumped isotopes: A case study from late Cryogenian glacial carbonates of Svalbard: *Geochimica et Cosmochimica Acta*, v. xx, p. xxx.
63. 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.**, *in review*, An exceptional record of early to middle Paleozoic redox change: *Science Advances*, v. xx, p. xxx.
62. 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., *in review*, Geomorphic and environmental controls on microbial mat fabrics on Little Ambergris Cay, Turks and Caicos Islands: *Sedimentology*, v. xx, p. xxx.
61. Trower, E.J., **Strauss, J.V.**, Sperling, E.A., and Fischer, W.W., *in review*, Isotopic analyses of Ordovician–Silurian siliceous skeletons indicate silica-depleted Paleozoic oceans: *Geobiology*, v. xx, p. xxx.

**2021:**

60. \*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.
59. \*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*, v. xx, p. xxx.
58. \*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.
57. \*Mehra, A., Keller, C.B., \*Zhang, T., Tosca, N.J., McLennan, S., SGP Team, and **Strauss, J.V.**, 2021, Curation and analysis of global sedimentary geochemical data to inform Earth history: *GSA Today*, v. 31, <https://doi.org/10.1130/GSATG484A.1>. CC-BY-NC.
56. McClelland, W.C., **Strauss, J.V.**, Colpron, M., Gilotti, J.A., \*Faehnrich, K., Malone, S.J., Gehrels, S.J., 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. xx, p. xxx.
55. 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.

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. xxx-xxx.

**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 metagneous 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.**, 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.

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.
37. Halverson, G.P., Maloof, A.C., **Strauss, J.V.**, and Kunzmann, M., 2018, The Tonian–Cryogenian transition in northeastern Svalbard: *Precambrian Research*, v. 319, p. 79–95.
36. Macdonald, F.A., Schmitz, M.D., **Strauss, J.V.**, Halverson, G.P., Gibson, T., Eyster, A., Cox, G., \*\*Mamrol, P., and Crowley, J., 2018, The Cryogenian of Yukon: *Precambrian Research*, v. 319, p. 114–143.
35. Trower, E.J., Cantine, M., Gomes, M., Grotzinger, H., Grotzinger, J.P., Knoll, A.H., Lamb, M.P., Lingappa, U., O’Reilly, S.S., Present, T.M., Stein, N., **Strauss, J.V.**, and Fischer, W.W., 2018, Active ooid growth driven by sediment transport in a high energy shoal, Little Ambergris Cay, Turks and Caicos, British Overseas Territories, *Journal of Sedimentary Research*, v. 88, p. 1132–1151.
- 2017:**
34. Cohen, P.A., Irvine, S., and **Strauss, J.V.**, 2017, Vase-shaped microfossils from the Callison Lake Formation of Yukon, Canada: Taxonomy, taphonomy, and stratigraphic paleobiology: *Palaeontology*, v. 60, no. 5, p. 1-19.
33. Cohen, P.A., **Strauss, J.V.**, Rooney, A.D., Sharma, M., and Tosca, N.J., 2017, Controlled hydroxyapatite biomineralization in an ~810 million-year-old unicellular eukaryote: *Science Advances*, v. 3, n. 6, p. 1-8.
32. Eyster, A.E., Fu, R.R., **Strauss, J.V.**, Weiss B.J., Roots, C.F., Halverson, G.P., Evans, D.A.D., and Macdonald, F.A., 2017, Paleomagnetic evidence for a 50 degree rotation of the Yukon block relative to Laurentia: Implications for a low-latitude Sturtian glaciation and the break-up of Rodinia: *Geological Society of America Bulletin*, v. 129, no. 1/2, p. 38–58.
31. Miller, A.J., **Strauss, J.V.**, Halverson, G.P., Macdonald, F.A., Johnston, D.T., and Sperling, E.A., 2017, Tracking the onset of Phanerozoic-style redox-sensitive trace metal enrichments: New data from basal Ediacaran post-glacial strata in NW Canada: *Chemical Geology*, v. 457, p. 24–37.
30. **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.

29. **Strauss, J.V.**, Hoiland, C.W., Ward, W., Johnson, B.G., Nelson, L., and McClelland, W.C., 2017, Orogen transplant: Taconic–Caledonian magmatism in the Brooks Range of Alaska: *Geological Society of America Bulletin*, v. 129, no. 5/6, p. 649–676.

#### 2016:

28. Cox, G.M., Halverson, G.P., Poirier, A., Le Heron, D., Stevenson, R., and **Strauss, J.V.**, 2016a, A model for Cryogenian iron formation: *Earth and Planetary Science Letters*, v. 433, p. 280–292.

27. Cox, G.M., Halverson, G.P., Stevenson, R.K., Vokaty, M., Poirier, A., Kunzmann, M., Li, Z.-X., Denyszyn, S.W., **Strauss, J.V.**, and Macdonald, F.A., 2016b, Continental flood basalt weathering as a trigger for Neoproterozoic Snowball Earth: *Earth and Planetary Science Letters*, v. 446, p. 89–99.

26. Johnson, B.G., **Strauss, J.V.**, Toro, J., Benowitz, J.A., and Ward, W.P., 2016, Detrital geochronology of pre-Mississippian strata in the northeastern Brooks Range, Alaska: Insights into the tectonic evolution of northern Laurentia: *Lithosphere*, v. 8, no. 6, p. 649–667.

25. Knoll, A.H., Bergmann, K.D., and **Strauss, J.V.**, 2016, Life: The First Two Billion Years: *Philosophical Transactions of the Royal Society B*, v. 371, p. 1-13.

24. Sperling, E.A., Carbone, C., **Strauss, J.V.**, Johnston, D.J., Narbonne, G.M., and Macdonald, F.A., 2016, Oxygen, facies, and secular controls on the appearance of Cryogenian and Ediacaran body and trace fossils in the Mackenzie Mountains of northwestern Canada: *Geological Society of America Bulletin*, v. 128, no. 3-4, p. 558–575.

#### 2015:

23. Cox, G.M., **Strauss, J.V.**, Halverson, G.P., McClelland, W.C., Schmitz, M., and Macdonald, F.A., 2015, Kikiktat Volcanics of Arctic Alaska: Melting of subcontinental lithospheric mantle associated with the Franklin Large Igneous Province: *Lithosphere*, v. 7, no. 3, p. 275–295.

22. Martindale, R.C., **Strauss, J.V.**, Sperling, E.A., Johnson, J.E., Van Kranendonk, M.J., Flannery, D., French, K., Lepot, K., Mazumder, R., Rice, M.S., Schrag, D.P., Summons, R., Walter, M., Abelson, J., and Knoll, A.H., 2015, Sedimentology, chemostratigraphy and stromatolites of lower Paleoproterozoic carbonates, Turee Creek Group, Western Australia: *Precambrian Research*, v. 266, p. 194–211.

21. 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.

20. Rooney, A.D., **Strauss, J.V.**, Brandon, A.D., and Macdonald, F.A., 2015, A Cryogenian chronology: Two long-lasting, synchronous Neoproterozoic Snowball Earth glaciations: *Geology*, v. 43, no. 5, p. 459–462.

19. **Strauss, J.V.**, Macdonald, F.A., Halverson, G.P., Tosca, N.J., Schrag, D.P., and Knoll, A.H., 2015, Stratigraphic evolution of the Neoproterozoic Callison Lake Formation: Linking the break-up of Rodinia to the Islay carbon isotope excursion: *American Journal of Science*, v. 315, p. 881–944.

18. Taylor, J.F., Allen, T.J., Repetski, J.E., **Strauss, J.V.**, and Irwin, S.J., 2015, Life on the edge in eastern Alaska: basal Ordovician (Tremadocian) platform-margin faunas of the Jones Ridge Limestone, *in* S.A. Leslie, D. Goldman, and R.C. Orndorff, eds., 12th International Symposium on the Ordovician System, Short Papers and Abstracts: *Stratigraphy*, v. 12, no. 2, p. 70-77.

#### 2014:

17. Macdonald, F.A., Pruss, S. B., and **Strauss, J.V.**, 2014, Trace fossils with spreite from the Late Ediacaran Nama Group, Namibia: Complex feeding patterns five million years before the Precambrian–Cambrian boundary: *Journal of Paleontology*, v. 88, no.2, p. 299-308.

16. Rooney, A.D., Macdonald, F.A., **Strauss, J.V.**, Dudàs, F.Ö., Hallman, C., and Selby, D., 2014, Re-Os geochronology and coupled Os-Sr isotope constraints on the Sturtian snowball Earth: *Proceedings of the National Academy of Sciences*, v. 111, no. 1, p. 51-56.

15. **Strauss, J.V.**, Rooney, A.D., Macdonald, F.A., Brandon, A.D., and Knoll, A.H., 2014, 740 Ma vase-shaped microfossils from Yukon, Canada: Implications for Neoproterozoic chronology and biostratigraphy: *Geology*, v. 42, no. 8, p. 659-662.

14. **Strauss, J.V.**, Roots, C.F., Macdonald, F.A., Halverson, G.P., Eyster, A., and Colpron, M., 2014, Geological map of the Coal Creek inlier, Ogilvie Mountains (NTS 116B/10-15 and 116C/9,16): Yukon Geological Survey, Open File Report 2014-15, 1:100,000 scale.

### 2013:

13. Cox, G.M., Halverson, G.P., Minarik, W.G., LeHeron, D.P., Macdonald, F.A., Bellefroid, E.J., and **Strauss, J.V.**, 2013, Neoproterozoic iron formation: An evaluation of its temporal, environmental, and tectonic significance: *Chemical Geology*, v. 362, p. 232-249.

12. Macdonald, F.A., **Strauss, J.V.**, Sperling, E.A., Halverson, G.P., Narbonne, G.H., Johnston, D.T., Kunzmann, M., Schrag, D.P., and Higgins, J.A., 2013, The stratigraphic relationship between the Shuram carbon isotope excursion, the oxygenation of Neoproterozoic oceans, and the first appearance of the Ediacara biota and bilaterian trace fossils in northwestern Canada: *Chemical Geology*, v. 362, p. 250-272.

11. Myrow, P.M., Hanson, A., Phelps, A.S., Creveling, J.R., **Strauss, J.V.**, Fike, D.A., and Ripperdan, R.L., 2013, Latest Devonian (Famennian) global events in western Laurentia: Variations in the carbon isotopic record linked to diagenetic alteration below regionally extensive unconformities: *Palaeogeography, Palaeoclimatology, and Palaeoecology*, v.386, p. 194-209.

10. **Strauss, J.V.**, Macdonald, F.A., Taylor, J.F., Repetski, J.E., and McClelland, W.C., 2013, Laurentian origin for the North Slope of Alaska: Implications for the tectonic evolution of the Arctic: *Lithosphere*, v. 5, n. 5, p. 477-482.

### 2012:

9. Halverson, G.P., Macdonald, F.A., **Strauss, J.V.**, Smith, E.F., Cox, G.M., and Hubert-Théou, L., 2012, Updated definition and correlation of the lower Fifteenmile Group in the central and eastern Ogilvie Mountains: *in* Yukon Exploration and Geology 2011, K.E. MacFarlane and P.J. Sack (eds.), Yukon Geological Survey, p. 75-90.

8. Macdonald, F.A., Halverson, G.P., **Strauss, J.V.**, Smith, E.F., Cox, G.M., Sperling, E.A., Roots, C.F., and Schrag, D.P., 2012, Early Neoproterozoic basin formation in Yukon, Canada: Implications for the make-up and break-up of Rodinia: *Geoscience Canada*, v. 39, p. 77-99.

### 2011:

7. Macdonald, F.A., Smith, E.F., **Strauss, J.V.**, Cox, G.M., Halverson, G.P. and Roots, C.F., 2011, Neoproterozoic and early Paleozoic correlations in the western Ogilvie Mountains, Yukon: *in* Yukon Exploration and Geology 2010, K.E. MacFarlane, L.H. Weston and C. Relf (eds.), Yukon Geological Survey, p. 161-182.

6. Myrow, P.M., **Strauss, J.V.**, Creveling, J., Sicard, K., Ripperdan, R., Sandberg, C.A., and Hartenfels, S., 2011, A carbon isotopic and sedimentological record of the Latest Devonian (Famennian) from the western U.S. and Germany: *Palaeogeography, Palaeoclimatology, and Palaeoecology*, v. 306, p. 147-159.

5. Tosca, N.J., Macdonald, F.A., **Strauss, J.V.**, Johnston, D.A., and Knoll, A.H., 2011, Sedimentary talc in Neoproterozoic carbonate successions: *Earth and Planetary Science Letters*, v. 306, p. 11-22.

### 2010:

4. Macdonald, F.A., **Strauss, J.V.**, Rose, C.V., Dudas, F.O., and Schrag, D.P., 2010, Stratigraphy of the Port Nolloth Group of Namibia and South Africa and implications for the age of Neoproterozoic iron formations: *American Journal of Science*, v. 310, p. 862-888.

3. Macdonald, F.A., Schmitz, M.D., Crowley, J.C., Roots, C.F., Jones, D.S., Maloof, A.C., **Strauss, J.V.**, Cohen, P.A., Johnston, D.T., Schrag, D.P., 2010, Calibrating the Cryogenian: *Science*, v. 327, pp. 1241-1243.

#### 2008:

2. Lamb, M.P., Myrow, P.M., Lukens, C., Houck, K., and **Strauss, J.**, 2008, Deposits from wave-influenced turbidity currents: Pennsylvanian Minturn Formation, Colorado, USA: *Journal of Sedimentary Research*, 78 (7), pp. 480-498.

1. Myrow, P.M., Lukens, C., Lamb, M.P., Houck, K., and **Strauss, J.**, 2008, Dynamics of a Transgressive Prodeltaic System: Implications for Geography and Climate within a Pennsylvanian Intracratonic Basin, Colorado, USA: *Journal of Sedimentary Research*, 78 (8), pp. 512-528.

### Recent Conference Abstracts (2016–2021)

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

#### 2021:

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, Paper No. xxx.

\*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.

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### Pending Research Grants

2021 NSF Polar Programs. *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.

### Awarded Research Grants

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

- 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**

\*James Busch – PhD supervisor in progress  
\*Karol Faehnrich – PhD supervisor in progress  
\*Tianran Zhang – PhD supervisor in progress  
Danielle Niu – PhD committee member in progress  
\*Virginia Wala – MSc supervisor grad. May 2019  
Mackenzie Marti – MSc committee member grad. Jan 2018  
Helen Doyle – MSc committee member grad. July 2016

**University of Iowa, Department of Earth and Environment, Iowa City, IA**

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**

Akshay Mehra in progress  
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 (2021-2023)

**Journal Reviewer**

Chemical Geology  
Geology  
Geosphere  
Geological Society of America Bulletin

Journal of the Geological Society of London  
 Lithosphere  
 Norwegian Journal of Geology  
 Palaeogeography, Palaeoclimatology, and Paleoecology  
 Precambrian Research  
 Sedimentology  
 Sedimentary Geology

#### **Ad hoc Panel Reviewer and Panelist**

NSF Tectonics  
 NSF Sedimentary Geology and Paleobiology  
 ACS Petroleum Research Fund

#### **Conference Session Convener**

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 Northeastern 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**

Geological Society of America	2004–2021
American Geophysical Union	2010–2021
Geological and Mineralogical Association of Canada	2010–2021
American Association of Petroleum Geologists	2010–2021
Society for Sedimentary Geology (SEPM)	2010–2021
American Alpine Club	2004–2021

#### **College/Departmental Committee Work**

Departmental Website Committee, Chair	2020-2021
Departmental Seminar Organizer	2019-2020
Departmental Inclusion, Diversity, and Equity Committee	2019-2020