Bruce H Vaughn

List of Publications by Year
in descending order

47 papers	4,532 citations	172457 29 h-index	233421 45 g-index
67 all docs	67 docs citations	67 times ranked	6747 citing authors

#	Article	IF	Citations
1	Eemian interglacial reconstructed from a Greenland folded ice core. Nature, 2013, 493, 489-494.	27.8	565
2	Upward revision of global fossil fuel methane emissions based on isotope database. Nature, 2016, 538, 88-91.	27.8	400
3	The 8.2ka event from Greenland ice cores. Quaternary Science Reviews, 2007, 26, 70-81.	3.0	386
4	Very Strong Atmospheric Methane Growth in the 4ÂYears 2014â€“2017: Implications for the Paris Agreement. Global Biogeochemical Cycles, 2019, 33, 318-342.	4.9	353
5	A 21st-century shift from fossil-fuel to biogenic methane emissions indicated by ¹³ CH ₄. Science, 2016, 352, 80-84.	12.6	336
6	Rising atmospheric methane: 2007â€“2014 growth and isotopic shift. Global Biogeochemical Cycles, 2016, 30, 1356-1370.	4.9	317
7	Onset of deglacial warming in West Antarctica driven by local orbital forcing. Nature, 2013, 500, 440-444.	27.8	276
8	Demonstration of highâ€precision continuous measurements of water vapor isotopologues in laboratory and remote field deployments using wavelengthâ€scanned cavity ringâ€down spectroscopy (WSâ€CRDS) technology. Rapid Communications in Mass Spectrometry, 2009, 23, 2534-2542.	1.5	273
9	Compiled records of carbon isotopes in atmospheric CO₂ for historical simulations in CMIP6. Geoscientific Model Development, 2017, 10, 4405-4417.	3.6	154
10	Recent climate and ice-sheet changes in West Antarctica compared with the past 2,000 years. Nature Geoscience, 2013, 6, 372-375.	12.9	140
11	Increased water-use efficiency and reduced CO2 uptake by plants during droughts at a continental scale. Nature Geoscience, 2018, 11, 744-748.	12.9	139
12	Variations in global methane sources and sinks during 1910â€“2010. Atmospheric Chemistry and Physics, 2015, 15, 2595-2612.	4.9	108
13	Determining long time-scale hyporheic zone flow paths in Antarctic streams. Hydrological Processes, 2003, 17, 1691-1710.	2.6	97
14	Interpreting methane variations in the past two decades using measurements of CH₄ mixing ratio and isotopic composition. Atmospheric Chemistry and Physics, 2011, 11, 9141-9153.	4.9	95
15	Surface glaciochemistry of Taylor Valley, southern Victoria Land, Antarctica and its relationship to stream chemistry. Hydrological Processes, 2003, 17, 115-130.	2.6	74
16	Monthly precipitation isoscapes (Î´¹⁸O) of the United States: Connections with surface temperatures, moisture source conditions, and air mass trajectories. Journal of Geophysical Research, 2010, 115, .	3.3	63
17	A Stable Isotopic Investigation of a Polar Desert Hydrologic System, McMurdo Dry Valleys, Antarctica. Arctic, Antarctic, and Alpine Research, 2006, 38, 60-71.	1.1	61
18	No inter-hemispheric Î´13CH4 trend observed. Nature, 2012, 486, E3-E4.	27.8	60

#	Article	IF	Citations
19	Improved Constraints on Global Methane Emissions and Sinks Using Î´¹³Câ€CH₄. Global Biogeochemical Cycles, 2021, 35, e2021GB007000.	4.9	50
20	Isoscapes to Address Largeâ€Scale Earth Science Challenges. Eos, 2009, 90, 109-110.	0.1	45
21	Moisture source temperatures and precipitation Î´¹⁸Oâ€temperature relationships across the United States. Water Resources Research, 2010, 46, .	4.2	45
22	Enhanced North American carbon uptake associated with El NiÃ±o. Science Advances, 2019, 5, eaaw0076.	10.3	45
23	Long-term field performance of a tunable diode laser absorption spectrometer for analysis of carbon isotopes of CO₂ in forest air. Atmospheric Chemistry and Physics, 2008, 8, 5263-5277.	4.9	40
24	Improved methodologies for continuous-flow analysis of stable water isotopes in ice cores. Atmospheric Measurement Techniques, 2017, 10, 617-632.	3.1	37
25	Core handling and processing for the WAIS Divide ice-core project. Annals of Glaciology, 2014, 55, 15-26.	1.4	34
26	Using <i>Î´</i>¹³C-CH₄ and <i>Î´</i>D-CH₄ to constrain Arctic methane emissions. Atmospheric Chemistry and Physics, 2016, 16, 14891-14908.	4.9	34
27	Background variations of atmospheric CO₂ and carbonâ€stable isotopes at Waliguan and Shangdianzi stations in China. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5602-5612.	3.3	31
28	Interlaboratory comparison of <i>Î´</i>¹³C and <i>Î´</i>D measurements of atmospheric CH₄ for combined use of data sets from different laboratories. Atmospheric Measurement Techniques, 2018, 11, 1207-1231.	3.1	31
29	Evidence of Isotopic Fractionation During Vapor Exchange Between the Atmosphere and the Snow Surface in Greenland. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2932-2945.	3.3	30
30	High-precision CO_2 isotopologue spectrometer with a difference-frequency-generation laser source. Optics Letters, 2009, 34, 172.	3.3	28
31	A 120,000-year long climate record from a NW-Greenland deep ice core at ultra-high resolution. Scientific Data, 2021, 8, 141.	5.3	28
32	Ecological processes dominate the ¹³C land disequilibrium in a Rocky Mountain subalpine forest. Global Biogeochemical Cycles, 2014, 28, 352-370.	4.9	27
33	Continuous-Flow Analysis of Î´17O, Î´18O, and ÎD of H2O on an Ice Core from the South Pole. Frontiers in Earth Science, 2021, 9, .	1.8	18
34	Carbon monoxide isotopic measurements in Indianapolis constrain urban source isotopic signatures and support mobile fossil fuel emissions as the dominant wintertime CO source. Elementa, 2017, 5, .	3.2	13
35	Varying regional <i>Î´</i>¹⁸Oâ€“temperature relationship in high-resolution stable water isotopes from east Greenland. Climate of the Past, 2019, 15, 893-912.	3.4	10
36	Stable isotopes and electrical conductivity as keys to understanding water pathways and storage in South Cascade Glacier, Washington, USA. Annals of Glaciology, 2005, 40, 107-112.	1.4	9

#	Article	IF	Citations
37	Global Network Measurements of Atmospheric Trace Gas Isotopes. , 2010, , 3-31.		9
38	Investigating large methane enhancements in the U.S. San Juan Basin. Elementa, 2020, 8, .	3.2	8
39	High-frequency climate variability in the Holocene from a coastal-dome ice core in east-central Greenland. Climate of the Past, 2020, 16, 1369-1386.	3.4	8
40	The CarbonTracker Data Assimilation System for CO₂ and <i>Î´</i>¹³C (CTDAS-C13 v1.0): retrieving information onÂlandâ€“atmosphere exchange processes. Geoscientific Model Development, 2018, 11, 283-304.	3.6	6
41	An improved estimate for the <i>Î´</i>¹³C and <i>Î´</i>¹⁸O signatures of carbon monoxide produced from atmospheric oxidation of volatile organic compounds. Atmospheric Chemistry and Physics, 2019, 19, 8547-8562.	4.9	6
42	Reconstruction of Temperature, Accumulation Rate, and Layer Thinning From an Ice Core at South Pole, Using a Statistical Inverse Method. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033300.	3.3	6
43	Variational inverse modeling within the Community Inversion Framework v1.1 to assimilate <i>Î´</i>¹³C(CH₄) and CH₄: a case study with model LMDz-SACS. Geoscientific Model Development, 2022, 15, 4831-4851.	3.6	6
44	The Soil Water Isotope Storage System (SWISS): An integrated soil water vapor sampling and multiport storage system for stable isotope geochemistry. Rapid Communications in Mass Spectrometry, 2020, 34, e8783.	1.5	5
45	Does vapor pressure deficit drive the seasonality of Î´ 13 C of the net landâ€atmosphere CO 2 exchange across the United States?. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1969-1987.	3.0	3
46	An unmanned aerial vehicle sampling platform for atmospheric water vapor isotopes in polar environments. Atmospheric Measurement Techniques, 2021, 14, 7045-7067.	3.1	3
47	Envisioning and Sustaining Science at Summit Station, Greenland. Eos, 2017, , .	0.1	0