Edward J Brook

List of Publications by Year in descending order

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100 papers	7,976 citations	53794 45 h-index	49909 87 g-index
103 all docs	103 docs citations	103 times ranked	5929 citing authors

#	Article	IF	Citations
1	Timing of Millennial-Scale Climate Change in Antarctica and Greenland During the Last Glacial Period. Science, 2001, 291, 109-112.	12.6	1,019
2	Timing of abrupt climate change at the end of the Younger Dryas interval from thermally fractionated gases in polar ice. Nature, 1998, 391, 141-146.	27.8	639
3	Abrupt Climate Change at the End of the Last Glacial Period Inferred from Trapped Air in Polar Ice. Science, 1999, 286, 930-934.	12.6	506
4	Centennial-scale changes in the global carbon cycle during the last deglaciation. Nature, 2014, 514, 616-619.	27.8	380
5	Examination of surface exposure ages of Antarctic moraines using in situ produced 10Be and 26Al. Geochimica Et Cosmochimica Acta, 1991, 55, 2269-2283.	3.9	295
6	On the origin and timing of rapid changes in atmospheric methane during the Last Glacial Period. Global Biogeochemical Cycles, 2000, 14, 559-572.	4.9	270
7	Atmospheric CO ₂ and Climate on Millennial Time Scales During the Last Glacial Period. Science, 2008, 322, 83-85.	12.6	250
8	Greenland temperature response to climate forcing during the last deglaciation. Science, 2014, 345, 1177-1180.	12.6	226
9	Precise timing and characterization of abrupt climate change 8200 years ago from air trapped in polar ice. Quaternary Science Reviews, 2007, 26, 1212-1222.	3.0	213
10	Geochemical proxies of North American freshwater routing during the Younger Dryas cold event. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 6556-6561.	7.1	162
11	Oxygen-18 of O ₂ Records the Impact of Abrupt Climate Change on the Terrestrial Biosphere. Science, 2009, 324, 1431-1434.	12.6	152
12	The WAIS Divide deep ice core WD2014 chronology â€“ Part 2: Annual-layer counting (0â€“31â€¯kaâ€¯BP). Climate of the Past, 2016, 12, 769-786.	3.4	137
13	Timing of millennial-scale climate change at Siple Dome, West Antarctica, during the last glacial period. Quaternary Science Reviews, 2005, 24, 1333-1343.	3.0	130
14	Chronology of Taylor Glacier Advances in Arena Valley, Antarctica, Using in Situ Cosmogenic 3He and 10Be. Quaternary Research, 1993, 39, 11-23.	1.7	126
15	Effective attenuation lengths of cosmic rays producing ¹⁰Be AND ²⁶Al in quartz: Implications for exposure age dating. Geophysical Research Letters, 1992, 19, 369-372.	4.0	125
16	Enhanced tropical methane production in response to iceberg discharge in the North Atlantic. Science, 2015, 348, 1016-1019.	12.6	118
17	Variable responses of western U.S. glaciers during the last deglaciation. Geology, 2004, 32, 81.	4.4	112
18	Carbon isotopes characterize rapid changes in atmospheric carbon dioxide during the last deglaciation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3465-3470.	7.1	109

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19	A northern lead in the orbital band: northâ€“south phasing of Ice-Age events. Quaternary Science Reviews, 2002, 21, 431-441.	3.0	97
20	Antarctic and global climate history viewed from ice cores. Nature, 2018, 558, 200-208.	27.8	96
21	¹⁴ CH ₄ Measurements in Greenland Ice: Investigating Last Glacial Termination CH ₄ Sources. Science, 2009, 324, 506-508.	12.6	88
22	Two-million-year-old snapshots of atmospheric gases from Antarctic ice. Nature, 2019, 574, 663-666.	27.8	88
23	Northwest Svalbard during the last glaciation: Ice-free areas existed. Geology, 2003, 31, 905.	4.4	87
24	Siple Dome ice reveals two modes of millennial CO2 change during the last ice age. Nature Communications, 2014, 5, 3723.	12.8	82
25	Cosmogenic 3He and 10Be chronologies of the late Pinedale northern Yellowstone ice cap, Montana, USA. Geology, 2001, 29, 1095.	4.4	81
26	Ice Record of Â13C for Atmospheric CH4 Across the Younger Dryas-Preboreal Transition. Science, 2006, 313, 1109-1112.	12.6	80
27	Beryllium-10 exposure ages of erratic boulders in southern Norway and implications for the history of the Fennoscandian Ice Sheet. Quaternary Science Reviews, 2008, 27, 320-336.	3.0	79
28	Multidecadal variability of atmospheric methane, 1000â€“1800 C.E.. Journal of Geophysical Research, 2011, 116, .	3.3	78
29	Cosmogenic nuclide exposure ages along a vertical transect in western Norway: Implications for the height of the Fennoscandian ice sheet. Geology, 1996, 24, 207.	4.4	76
30	Atmospheric CO₂ over the last 1000 years: A highâ€resolution record from the West Antarctic Ice Sheet (WAIS) Divide ice core. Global Biogeochemical Cycles, 2012, 26, .	4.9	68
31	Links between atmospheric carbon dioxide, theÂland carbon reservoir and climate over theÂpast millennium. Nature Geoscience, 2015, 8, 383-387.	12.9	66
32	Continuous methane measurements from a late Holocene Greenland ice core: Atmospheric and in-situ signals. Earth and Planetary Science Letters, 2013, 368, 9-19.	4.4	65
33	Rapid Holocene Deglaciation of the Labrador Sector of the Laurentide Ice Sheet. Journal of Climate, 2007, 20, 5126-5133.	3.2	62
34	Antarctic surface temperature and elevation during the Last Glacial Maximum. Science, 2021, 372, 1097-1101.	12.6	61
35	Gas records from the West Greenland ice margin covering the Last Glacial Termination: a horizontal ice core. Quaternary Science Reviews, 2006, 25, 865-875.	3.0	60
36	CO₂ diffusion in polar ice: observations from naturally formed CO₂ spikes in the Siple Dome (Antarctica) ice core. Journal of Glaciology, 2008, 54, 685-695.	2.2	60

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37	Atmospheric CO2and climate from 65 to 30 ka B.P.. Geophysical Research Letters, 2007, 34, .	4.0	59
38	Synchronous volcanic eruptions and abrupt climate change â^¼17.7 ka plausibly linked by stratospheric ozone depletion. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10035-10040.	7.1	58
39	Radiometric ⁸¹ Kr dating identifies 120,000-year-old ice at Taylor Glacier, Antarctica. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6876-6881.	7.1	57
40	Surface-Exposure Chronology Using in Situ Cosmogenic 3He in Antarctic Quartz Sandstone Boulders. Quaternary Research, 1993, 39, 1-10.	1.7	53
41	Abrupt changes in the global carbon cycle during the last glacial period. Nature Geoscience, 2021, 14, 91-96.	12.9	53
42	Glacial survival of blockfields on the Varanger Peninsula, northern Norway. Geomorphology, 2006, 82, 255-272.	2.6	51
43	Earliest Holocene south Greenland ice sheet retreat within its late Holocene extent. Geophysical Research Letters, 2014, 41, 5514-5521.	4.0	50
44	Cosmogenic Be dating of the Salpausselkï¿½ I Moraine in southwestern Finland. Quaternary Science Reviews, 2004, 23, 2283-2289.	3.0	49
45	An ice core record of near-synchronous global climate changes at the BÃ¸lling transition. Nature Geoscience, 2014, 7, 459-463.	12.9	48
46	Cosmogenic nuclide exposure ages and glacial history of late Quaternary Ross Sea drift in McMurdo Sound, Antarctica. Earth and Planetary Science Letters, 1995, 131, 41-56.	4.4	46
47	Chronology reconstruction for the disturbed bottom section of the GISP2 and the GRIP ice cores: Implications for Termination II in Greenland. Journal of Geophysical Research, 2006, 111, .	3.3	46
48	Timing of the last deglaciation in Lithuania. Boreas, 2008, 37, 426-433.	2.4	46
49	In situ 10Be exposure ages from southeastern Norway: implications for the geometry of the Weichselian Scandinavian ice sheet. Quaternary Science Reviews, 2006, 25, 1097-1109.	3.0	43
50	Reconstructing the last interglacial at Summit, Greenland: Insights from GISP2. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9710-9715.	7.1	40
51	Observing and modeling the influence of layering on bubble trapping in polar firn. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2558-2574.	3.3	39
52	Isotopic constraints on marine and terrestrial N2O emissions during the last deglaciation. Nature, 2014, 516, 234-237.	27.8	38
53	The SP19 chronology for the South Pole Ice Core â€“ Part 1: volcanic matching and annual layer counting. Climate of the Past, 2019, 15, 1793-1808.	3.4	38
54	The surface geometry of the Last Glacial Maximum ice sheet in the AndÃ¸yaâ€škÃ¥nland region, northern Norway, constrained by surface exposure dating and clay mineralogy. Boreas, 2007, 36, 227-239.	2.4	33

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55	Timing of the last deglaciation in Belarus. Boreas, 2007, 36, 307-313.	2.4	33
56	A high-precision method for measurement of paleoatmospheric CO2 in small polar ice samples. Journal of Glaciology, 2009, 55, 499-506.	2.2	33
57	Atmospheric methane and millennial-scale climate change. Geophysical Monograph Series, 1999, , 165-175.	0.1	31
58	Accretion of interplanetary dust in polar ice. Geophysical Research Letters, 2000, 27, 3145-3148.	4.0	31
59	Abrupt changes in atmospheric methane at the MIS 5bâ€“5a transition. Geophysical Research Letters, 2007, 34, .	4.0	30
60	Cosmogenic 10Be ages of the Saglek Moraines, Torngat Mountains, Labrador. Geology, 2003, 31, 617.	4.4	28
61	Abrupt change in atmospheric CO₂ during the last ice age. Geophysical Research Letters, 2012, 39, .	4.0	28
62	¹⁰<scp>B</scp>e exposure age constraints on the <scp>L</scp>ate <scp>W</scp>eichselian iceâ€sheet geometry and dynamics in interâ€iceâ€stream areas, western <scp>S</scp>valbard. Boreas, 2013, 42, 43-56.	2.4	26
63	Does Î´¹⁸O of O₂ record meridional shifts in tropical rainfall?. Climate of the Past, 2017, 13, 1323-1338.	3.4	26
64	Comment on â€œGreenland-Antarctic phase relations and millennial time-scale climate fluctuations in the Greenland ice-coresâ€•by C. Wunsch. Quaternary Science Reviews, 2004, 23, 2053-2054.	3.0	24
65	Local artifacts in ice core methane records caused by layered bubble trapping and in situ production: a multi-site investigation. Climate of the Past, 2016, 12, 1061-1077.	3.4	23
66	10Be age constraints on latest Pleistocene and Holocene cirque glaciation across the western United States. Npj Climate and Atmospheric Science, 2019, 2, .	6.8	23
67	ATMOSPHERIC SCIENCE: Tiny Bubbles Tell All. Science, 2005, 310, 1285-1287.	12.6	22
68	Antarctic temperature and CO₂: near-synchrony yet variable phasing during the last deglaciation. Climate of the Past, 2019, 15, 913-926.	3.4	20
69	Excess methane in Greenland ice cores associated with high dust concentrations. Geochimica Et Cosmochimica Acta, 2020, 270, 409-430.	3.9	20
70	Flux and size fractionation of 3He in interplanetary dust from Antarctic ice core samples. Earth and Planetary Science Letters, 2009, 286, 565-569.	4.4	19
71	Relative timing and variability of atmospheric methane and GISP2 oxygen isotopes between 68 and 86 ka. Global Biogeochemical Cycles, 2009, 23, .	4.9	19
72	Cosmogenic dating of Late Pleistocene glaciation, southern tropical Andes, Peru. Journal of Quaternary Science, 2015, 30, 841-847.	2.1	19

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73	A New Method for Analyzing ¹⁴C of Methane in Ancient Air Extracted from Glacial Ice. Radiocarbon, 2008, 50, 53-73.	1.8	18
74	Measurements of 14C in ancient ice from Taylor Glacier, Antarctica constrain in situ cosmogenic 14CH4 and 14CO production rates. Geochimica Et Cosmochimica Acta, 2016, 177, 62-77.	3.9	18
75	Impact of the ocean's Overturning circulation on atmospheric CO2. Geophysical Monograph Series, 2007, , 315-334.	0.1	17
76	Modes of Global Climate Variability during Marine Isotope Stage 3 (60â€“26 ka). Journal of Climate, 2010, 23, 1581-1588.	3.2	17
77	A novel method for obtaining very large ancient air samples from ablating glacial ice for analyses of methane radiocarbon. Journal of Glaciology, 2008, 54, 233-244.	2.2	16
78	Atmospheric methane control mechanisms during the early Holocene. Climate of the Past, 2017, 13, 1227-1242.	3.4	16
79	The SP19 chronology for the South Pole Ice Core â€“ Part 2: gas chronology, Î”age, and smoothing of atmospheric records. Climate of the Past, 2020, 16, 2431-2444.	3.4	16
80	Cosmogenic 10 Be exposure age dating across Early to Late Weichselian ice-marginal zones in northwestern Russia. Boreas, 2006, 35, 576-586.	2.4	15
81	Response of atmospheric CO₂ to the abrupt cooling event 8200â€‰years ago. Geophysical Research Letters, 2014, 41, 604-609.	4.0	15
82	Atmospheric methane variability: Centennialâ€scale signals in the Last Glacial Period. Global Biogeochemical Cycles, 2017, 31, 575-590.	4.9	15
83	Atmospheric gas records from Taylor Glacier, Antarctica, reveal ancient ice with ages spanning the entire last glacial cycle. Climate of the Past, 2017, 13, 943-958.	3.4	15
84	Searching for the Oldest Ice. Eos, 2010, 91, 357-358.	0.1	14
85	Early to Late Holocene Surface Exposure Ages From Two Marineâ€Terminating Outlet Glaciers in Northwest Greenland. Geophysical Research Letters, 2018, 45, 7028-7039.	4.0	14
86	Spatial pattern of accumulation at Taylor Dome during Marine Isotope Stage 4: stratigraphic constraints from Taylor Glacier. Climate of the Past, 2019, 15, 1537-1556.	3.4	14
87	An 83â€‰000-year-old ice core from Roosevelt Island, Ross Sea, Antarctica. Climate of the Past, 2020, 16, 1691-1713.	3.4	14
88	Ice stratigraphy at the PÃ¢kitsoq ice margin, West Greenland, derived from gas records. Journal of Glaciology, 2009, 55, 411-421.	2.2	12
89	N₂O changes from the Last Glacial Maximum to the preindustrial â€“ Part 1: Quantitative reconstruction of terrestrial and marine emissions using N₂O stable isotopes in ice cores. Biogeosciences, 2019, 16, 3997-4021.	3.3	12
90	Cosmogenic 10 Be ages on the Pomeranian Moraine, Poland. Boreas, 2008, 34, 186-191.	2.4	11

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91	Widespread early Holocene deglaciation, Washington Land, northwest Greenland. Quaternary Science Reviews, 2020, 231, 106181.	3.0	10
92	Methane from the East Siberian Arctic Shelf. Science, 2010, 329, 1146-1147.	12.6	9
93	Ice Sheets and the Ice-Core Record of Climate Change. International Geophysics, 2000, 72, 459-497.	0.6	7
94	Methane and megafauna. Nature Geoscience, 2011, 4, 271-272.	12.9	7
95	In situ cosmogenic radiocarbon production and 2â€Ð ice flow line modeling for an Antarctic blue ice area. Journal of Geophysical Research, 2012, 117, .	3.3	6
96	Ice core evidence for atmospheric oxygen decline since the Mid-Pleistocene transition. Science Advances, 2021, 7, eabj9341.	10.3	6
97	Enhanced moisture delivery into Victoria Land, East Antarctica, during the early Last Interglacial: implications for West Antarctic Ice Sheet stability. Climate of the Past, 2021, 17, 1841-1855.	3.4	5
98	Northern Hemisphere atmospheric history of carbon monoxide since preindustrial times reconstructed from multiple Greenland ice cores. Climate of the Past, 2022, 18, 631-647.	3.4	4
99	Comment on â€œSynchronous records of pCO2 and Î”14C suggest rapid, ocean-derived pCO2 fluctuations at the onset of Younger Dryasâ€•by Steinthorsdottir etÂal. Quaternary Science Reviews, 2015, 107, 267-270.	3.0	2
100	Rapid post-glacial bedrock weathering in coastal Norway. Geomorphology, 2022, 397, 108003.	2.6	1