

Richard Alley

List of Publications by Year in descending order

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208
papers

24,755
citations

7568

77
h-index

7518

151
g-index

223
all docs

223
docs citations

223
times ranked

12279
citing authors

#	ARTICLE	IF	CITATIONS
1	Holocene climatic instability: A prominent, widespread event 8200 yr ago. <i>Geology</i> , 1997, 25, 483.	4.4	1,577
2	Abrupt increase in Greenland snow accumulation at the end of the Younger Dryas event. <i>Nature</i> , 1993, 362, 527-529.	27.8	1,149
3	Abrupt Climate Change. <i>Science</i> , 2003, 299, 2005-2010.	12.6	1,017
4	The Younger Dryas cold interval as viewed from central Greenland. <i>Quaternary Science Reviews</i> , 2000, 19, 213-226.	3.0	752
5	The 8k event: cause and consequences of a major Holocene abrupt climate change. <i>Quaternary Science Reviews</i> , 2005, 24, 1123-1149.	3.0	727
6	Timing of abrupt climate change at the end of the Younger Dryas interval from thermally fractionated gases in polar ice. <i>Nature</i> , 1998, 391, 141-146.	27.8	639
7	Deformation of till beneath ice stream B, West Antarctica. <i>Nature</i> , 1986, 322, 57-59.	27.8	527
8	Validity of the temperature reconstruction from water isotopes in ice cores. <i>Journal of Geophysical Research</i> , 1997, 102, 26471-26487.	3.3	524
9	Ice-Sheet and Sea-Level Changes. <i>Science</i> , 2005, 310, 456-460.	12.6	463
10	Large Arctic Temperature Change at the Wisconsin-Holocene Glacial Transition. <i>Science</i> , 1995, 270, 455-458.	12.6	442
11	Paleoclimatic Evidence for Future Ice-Sheet Instability and Rapid Sea-Level Rise. <i>Science</i> , 2006, 311, 1747-1750.	12.6	400
12	Seismic measurements reveal a saturated porous layer beneath an active Antarctic ice stream. <i>Nature</i> , 1986, 322, 54-57.	27.8	391
13	Changes in Atmospheric Circulation and Ocean Ice Cover over the North Atlantic During the Last 41,000 Years. <i>Science</i> , 1994, 263, 1747-1751.	12.6	368
14	Potential Antarctic Ice Sheet retreat driven by hydrofracturing and ice cliff failure. <i>Earth and Planetary Science Letters</i> , 2015, 412, 112-121.	4.4	362
15	Deglacial changes in ocean circulation from an extended radiocarbon calibration. <i>Nature</i> , 1998, 391, 65-68.	27.8	360
16	Till beneath ice stream B: 3. Till deformation: Evidence and implications. <i>Journal of Geophysical Research</i> , 1987, 92, 8921-8929.	3.3	352
17	Assessment of the importance of ice-shelf buttressing to ice-sheet flow. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	352
18	How glaciers entrain and transport basal sediment: Physical constraints. <i>Quaternary Science Reviews</i> , 1997, 16, 1017-1038.	3.0	312

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19	Sedimentation beneath ice shelves – the view from ice stream B. Marine Geology, 1989, 85, 101-120.	2.1	310
20	The polar regions in a 2°C warmer world. Science Advances, 2019, 5, eaaw9883.	10.3	289
21	THE DEGLACIATION OF THE NORTHERN HEMISPHERE: A Global Perspective. Annual Review of Earth and Planetary Sciences, 1999, 27, 149-182.	11.0	275
22	Flow-law hypotheses for ice-sheet modeling. Journal of Glaciology, 1992, 38, 245-256.	2.2	268
23	Stability of the West Antarctic ice sheet in a warming world. Nature Geoscience, 2011, 4, 506-513.	12.9	261
24	Tidally Controlled Stick-Slip Discharge of a West Antarctic Ice. Science, 2003, 301, 1087-1089.	12.6	260
25	Till beneath ice stream B: 1. Properties derived from seismic travel times. Journal of Geophysical Research, 1987, 92, 8903-8911.	3.3	243
26	Deforming-bed origin for southern Laurentide till sheets?. Journal of Glaciology, 1991, 37, 67-76.	2.2	242
27	Influence of subglacial geology on the position of a West Antarctic ice stream from seismic observations. Nature, 1998, 394, 62-65.	27.8	234
28	Temperature and precipitation history of the Arctic. Quaternary Science Reviews, 2010, 29, 1679-1715.	3.0	226
29	The Paris Climate Agreement and future sea-level rise from Antarctica. Nature, 2021, 593, 83-89.	27.8	219
30	Ice-rafted debris associated with binge/purge oscillations of the Laurentide Ice Sheet. Paleoceanography, 1994, 9, 503-511.	3.0	217
31	Dominant influence of atmospheric circulation on snow accumulation in Greenland over the past 18,000 years. Nature, 1995, 373, 52-54.	27.8	210
32	Glaciohydraulic supercooling: a freeze-on mechanism to create stratified, debris-rich basal ice: I. Field evidence. Journal of Glaciology, 1998, 44, 547-562.	2.2	207
33	In search of ice-stream sticky spots. Journal of Glaciology, 1993, 39, 447-454.	2.2	206
34	Changes in the West Antarctic Ice Sheet. Science, 1991, 254, 959-963.	12.6	205
35	Visual-stratigraphic dating of the GISP2 ice core: Basis, reproducibility, and application. Journal of Geophysical Research, 1997, 102, 26367-26381.	3.3	203
36	Continued evolution of Jakobshavn Isbrae following its rapid speedup. Journal of Geophysical Research, 2008, 113, .	3.3	202

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37	Implications of increased Greenland surface melt under global-warming scenarios: ice-sheet simulations. Quaternary Science Reviews, 2004, 23, 1013-1027.	3.0	197
38	Ice-Sheet Response to Oceanic Forcing. Science, 2012, 338, 1172-1176.	12.6	197
39	Ice-core evidence of abrupt climate changes. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 1331-1334.	7.1	185
40	Fabrics in Polar Ice Sheets: Development and Prediction. Science, 1988, 240, 493-495.	12.6	179
41	History of the Greenland Ice Sheet: paleoclimatic insights. Quaternary Science Reviews, 2010, 29, 1728-1756.	3.0	177
42	Effect of Sedimentation on Ice-Sheet Grounding-Line Stability. Science, 2007, 315, 1838-1841.	12.6	176
43	Physical and structural properties of the Greenland Ice Sheet Project 2 ice core: A review. Journal of Geophysical Research, 1997, 102, 26559-26575.	3.3	165
44	Discovery of Till Deposition at the Grounding Line of Whillans Ice Stream. Science, 2007, 315, 1835-1838.	12.6	164
45	Stagnation of Ice Stream C, West Antarctica by water piracy. Geophysical Research Letters, 1997, 24, 265-268.	4.0	162
46	Basal Zone of the West Antarctic Ice Streams and its Role in Lubrication of Their Rapid Motion. Antarctic Research Series, 0, , 157-199.	0.2	159
47	Deforming-bed origin for southern Laurentide till sheets?. Journal of Glaciology, 1991, 37, 67-76.	2.2	151
48	Stabilizing feedbacks in glacier-bed erosion. Nature, 2003, 424, 758-760.	27.8	150
49	Ice Core Records of Atmospheric N ₂ O Covering the Last 106,000 Years. Science, 2003, 301, 945-948.	12.6	150
50	Ice-front variation and tidewater behavior on Helheim and Kangerdlugssuaq Glaciers, Greenland. Journal of Geophysical Research, 2008, 113, .	3.3	147
51	Ice stream D flow speed is strongly modulated by the tide beneath the Ross Ice Shelf. Geophysical Research Letters, 2003, 30, .	4.0	136
52	Seasonal to decadal scale variations in the surface velocity of Jakobshavn Isbrae, Greenland: Observation and model-based analysis. Journal of Geophysical Research, 2012, 117, .	3.3	134
53	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
54	Mapping c-axis fabrics to study physical processes in ice. Journal of Glaciology, 1995, 41, 197-203.	2.2	128

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55	Access of surface meltwater to beds of sub-freezing glaciers: preliminary insights. <i>Annals of Glaciology</i> , 2005, 40, 8-14.	1.4	120
56	Wally Was Right: Predictive Ability of the North Atlantic "Conveyor Belt" Hypothesis for Abrupt Climate Change. <i>Annual Review of Earth and Planetary Sciences</i> , 2007, 35, 241-272.	11.0	120
57	How much, how fast?: A science review and outlook for research on the instability of Antarctica's Thwaites Glacier in the 21st century. <i>Global and Planetary Change</i> , 2017, 153, 16-34.	3.5	118
58	Calibration of the $\delta^{18}\text{O}$ isotopic paleothermometer for central Greenland, using borehole temperatures. <i>Journal of Glaciology</i> , 1994, 40, 341-349.	2.2	117
59	Tidal forcing of basal seismicity of ice stream C, West Antarctica, observed far inland. <i>Journal of Geophysical Research</i> , 1997, 102, 15183-15196.	3.3	116
60	Advances in weather prediction. <i>Science</i> , 2019, 363, 342-344.	12.6	116
61	Till beneath ice stream B: 2. Structure and continuity. <i>Journal of Geophysical Research</i> , 1987, 92, 8913-8920.	3.3	115
62	A ^{10}Be chronology of lateglacial and Holocene mountain glaciation in the Scoresby Sund region, east Greenland: implications for seasonality during lateglacial time. <i>Quaternary Science Reviews</i> , 2008, 27, 2273-2282.	3.0	112
63	Glaciohydraulic supercooling: a freeze-on mechanism to create stratified, debris-rich basal ice: II. Theory. <i>Journal of Glaciology</i> , 1998, 44, 563-569.	2.2	111
64	Concerning the Deposition and Diagenesis of Strata in Polar Firn. <i>Journal of Glaciology</i> , 1988, 34, 283-290.	2.2	110
65	Basal mechanics of ice streams: Insights from the stick-slip motion of Whillans Ice Stream, West Antarctica. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	110
66	Ice-Core Analysis on the Siple Coast of West Antarctica. <i>Annals of Glaciology</i> , 1988, 11, 1-7.	1.4	109
67	Deglacial temperature history of West Antarctica. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 14249-14254.	7.1	105
68	Grain Growth in Polar Ice: I. Theory. <i>Journal of Glaciology</i> , 1986, 32, 415-424.	2.2	98
69	A northern lead in the orbital band: north-south phasing of Ice-Age events. <i>Quaternary Science Reviews</i> , 2002, 21, 431-441.	3.0	97
70	Greenland was nearly ice-free for extended periods during the Pleistocene. <i>Nature</i> , 2016, 540, 252-255.	27.8	95
71	Grain Growth in Polar Ice: II. Application. <i>Journal of Glaciology</i> , 1986, 32, 425-433.	2.2	94
72	Laboratory study of the frictional rheology of sheared till. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	94

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73	Continued deceleration of Whillans Ice Stream, West Antarctica. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	93
74	Dating the Siple Dome (Antarctica) ice core by manual and computer interpretation of annual layering. <i>Journal of Glaciology</i> , 2004, 50, 453-461.	2.2	90
75	A Simple Law for Ice-Shelf Calving. <i>Science</i> , 2008, 322, 1344-1344.	12.6	88
76	Dynamic (in)stability of Thwaites Glacier, West Antarctica. <i>Journal of Geophysical Research F: Earth Surface</i> , 2013, 118, 638-655.	2.8	88
77	The West Antarctic Ice Sheet and Long Term Climate Policy. <i>Climatic Change</i> , 2004, 64, 1-10.	3.6	84
78	Changes in continental and sea-salt atmospheric loadings in central Greenland during the most recent deglaciation: model-based estimates. <i>Journal of Glaciology</i> , 1995, 41, 503-514.	2.2	83
79	Oceanic Forcing of Ice-Sheet Retreat: West Antarctica and More. <i>Annual Review of Earth and Planetary Sciences</i> , 2015, 43, 207-231.	11.0	83
80	Tidal pacing, skipped slips and the slowdown of Whillans Ice Stream, Antarctica. <i>Journal of Glaciology</i> , 2014, 60, 795-807.	2.2	81
81	Influence of ice-sheet geometry and supraglacial lakes on seasonal ice-flow variability. <i>Cryosphere</i> , 2013, 7, 1185-1192.	3.9	80
82	Ice-shelf tidal flexure and subglacial pressure variations. <i>Earth and Planetary Science Letters</i> , 2013, 361, 422-428.	4.4	79
83	Ice sheet mass balance and sea level. <i>Antarctic Science</i> , 2009, 21, 413-426.	0.9	78
84	Texture of Polar Firn for Remote Sensing. <i>Annals of Glaciology</i> , 1987, 9, 1-4.	1.4	77
85	Summertime formation of Depth Hoar in central Greenland. <i>Geophysical Research Letters</i> , 1990, 17, 2393-2396.	4.0	76
86	Dilatant till facilitates ice-stream flow in northeast Greenland. <i>Earth and Planetary Science Letters</i> , 2014, 401, 57-69.	4.4	73
87	Glacial erosion: status and outlook. <i>Annals of Glaciology</i> , 2019, 60, 1-13.	1.4	73
88	Glaciohydraulic supercooling: a freeze-on mechanism to create stratified, debris-rich basal ice: II. Theory. <i>Journal of Glaciology</i> , 1998, 44, 563-569.	2.2	72
89	Sensitivity of Pine Island Glacier to observed ocean forcing. <i>Geophysical Research Letters</i> , 2016, 43, 10,817.	4.0	69
90	Outburst flooding and the initiation of ice-stream surges in response to climatic cooling: A hypothesis. <i>Geomorphology</i> , 2006, 75, 76-89.	2.6	68

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91	Subglacial Lake Whillans – Ice-penetrating radar and GPS observations of a shallow active reservoir beneath a West Antarctic ice stream. <i>Earth and Planetary Science Letters</i> , 2012, 331-332, 237-245.	4.4	66
92	Motion of an Antarctic glacier by repeated tidally modulated earthquakes. <i>Nature Geoscience</i> , 2012, 5, 623-626.	12.9	66
93	The Robustness of Midlatitude Weather Pattern Changes due to Arctic Sea Ice Loss. <i>Journal of Climate</i> , 2016, 29, 7831-7849.	3.2	65
94	Grain Growth in Polar Ice: I. Theory. <i>Journal of Glaciology</i> , 1986, 32, 415-424.	2.2	64
95	Is erosion by deforming subglacial sediments significant? (Toward till continuity). <i>Annals of Glaciology</i> , 1996, 22, 17-24.	1.4	64
96	Subglacial sediments as a control on the onset and location of two Siple Coast ice streams, West Antarctica. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	64
97	Antarctic surface temperature and elevation during the Last Glacial Maximum. <i>Science</i> , 2021, 372, 1097-1101.	12.6	61
98	Seismic observations of transient subglacial water flow beneath MacAyeal Ice Stream, West Antarctica. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	60
99	How high will the seas rise?. <i>Science</i> , 2016, 354, 1375-1377.	12.6	59
100	Polar Firn Densification and Grain Growth. <i>Annals of Glaciology</i> , 1982, 3, 7-11.	1.4	58
101	Estuaries beneath ice sheets. <i>Geology</i> , 2013, 41, 1159-1162.	4.4	58
102	Extensive storage of basal meltwater in the onset region of a major West Antarctic ice stream. <i>Geology</i> , 2007, 35, 251.	4.4	57
103	Rheology of Glacier Ice. <i>Science</i> , 1985, 227, 1335-1337.	12.6	56
104	Effects of basal melting distribution on the retreat of ice shelf grounding lines. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	56
105	Initial results from geophysical surveys and shallow coring of the Northeast Greenland Ice Stream (NEGIS). <i>Cryosphere</i> , 2014, 8, 1275-1287.	3.9	56
106	A water-piracy hypothesis for the stagnation of Ice Stream C, Antarctica. <i>Annals of Glaciology</i> , 1994, 20, 187-194.	1.4	56
107	How can low-pressure channels and deforming tills coexist subglacially?. <i>Journal of Glaciology</i> , 1992, 38, 200-207.	2.2	55
108	Ice sheets, global warming, and article 2 of the UNFCCC. <i>Climatic Change</i> , 2005, 68, 257-267.	3.6	55

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109	Seismic and geodetic evidence for grounding-line control of Whillans Ice Stream stick-slip events. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 333-348.	2.8	55
110	Subglacial Lake Whillans – Seismic observations of a shallow active reservoir beneath a West Antarctic ice stream. <i>Earth and Planetary Science Letters</i> , 2012, 331-332, 201-209.	4.4	54
111	Twenty-first century sea-level rise could exceed IPCC projections for strong-warming futures. <i>One Earth</i> , 2020, 3, 691-703.	6.8	52
112	Ice Stream C, Antarctica, sticky spots detected by microearthquake monitoring. <i>Annals of Glaciology</i> , 1994, 20, 183-186.	1.4	52
113	Basal conditions at the grounding zone of Whillans Ice Stream, West Antarctica, from ice-penetrating radar. <i>Journal of Geophysical Research F: Earth Surface</i> , 2016, 121, 1954-1983.	2.8	50
114	Ice-sheet mass balance: assessment, attribution and prognosis. <i>Annals of Glaciology</i> , 2007, 46, 1-7.	1.4	49
115	Linking postglacial landscapes to glacier dynamics using swath radar at Thwaites Glacier, Antarctica. <i>Geology</i> , 2020, 48, 268-272.	4.4	49
116	The effects of entrained debris on the basal sliding stability of a glacier. <i>Journal of Geophysical Research F: Earth Surface</i> , 2013, 118, 656-666.	2.8	47
117	FIRN DENSIFICATION BY GRAIN-BOUNDARY SLIDING : A FIRST MODEL. <i>Journal De Physique Colloque</i> , 1987, 48, C1-249-C1-256.	0.2	43
118	Ice Stream C, Antarctica, sticky spots detected by microearthquake monitoring. <i>Annals of Glaciology</i> , 1994, 20, 183-186.	1.4	42
119	Developing a bubble number-density paleoclimatic indicator for glacier ice. <i>Journal of Glaciology</i> , 2006, 52, 358-364.	2.2	42
120	Englacial seismic reflectivity: imaging crystal-orientation fabric in West Antarctica. <i>Journal of Glaciology</i> , 2011, 57, 639-650.	2.2	42
121	TOWARDS A HYDROLOGICAL MODEL FOR COMPUTERIZED ICE-SHEET SIMULATIONS. <i>Hydrological Processes</i> , 1996, 10, 649-660.	2.6	41
122	Subglacial thermal balance permits ongoing grounding-line retreat along the Siple Coast of West Antarctica. <i>Annals of Glaciology</i> , 2003, 36, 251-256.	1.4	41
123	Surface elevation changes at the front of the Ross Ice Shelf: Implications for basal melting. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	41
124	Physical properties of the WAIS Divide ice core. <i>Journal of Glaciology</i> , 2014, 60, 1181-1198.	2.2	41
125	Complex fabric development revealed by englacial seismic reflectivity: Jakobshavn Isbr�, Greenland. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	40
126	Ice sheet grounding zone stabilization due to till compaction. <i>Geophysical Research Letters</i> , 2013, 40, 5406-5411.	4.0	40

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127	Basal conditions and ice dynamics inferred from radar-derived internal stratigraphy of the northeast Greenland ice stream. <i>Annals of Glaciology</i> , 2014, 55, 127-137.	1.4	40
128	Relating bed character and subglacial morphology using seismic data from Thwaites Glacier, West Antarctica. <i>Earth and Planetary Science Letters</i> , 2019, 507, 199-206.	4.4	40
129	Basal-crevasse-fill origin of laminated debris bands at Matanuska Glacier, Alaska, U.S.A.. <i>Journal of Glaciology</i> , 2001, 47, 412-422.	2.2	39
130	Modeling Ice-Sheet Flow. <i>Science</i> , 2012, 336, 551-552.	12.6	39
131	Observing and modeling the influence of layering on bubble trapping in polar firn. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 2558-2574.	3.3	39
132	The SP19 chronology for the South Pole Ice Core – Part 1: volcanic matching and annual layer counting. <i>Climate of the Past</i> , 2019, 15, 1793-1808.	3.4	38
133	Understanding Glacier Flow in Changing Times. <i>Science</i> , 2008, 322, 1061-1062.	12.6	37
134	Troughs developed in ice-stream shear margins precondition ice shelves for ocean-driven breakup. <i>Science Advances</i> , 2019, 5, eaax2215.	10.3	37
135	Preliminary results of tritium analyses in basal ice, Matanuska Glacier, Alaska, U.S.A.: evidence for subglacial ice accretion. <i>Annals of Glaciology</i> , 1996, 22, 126-133.	1.4	36
136	Accelerated subglacial erosion in response to stick-slip motion. <i>Geology</i> , 2013, 41, 159-162.	4.4	36
137	Preliminary firn-densification model with 38-site dataset. <i>Journal of Glaciology</i> , 2001, 47, 671-676.	2.2	35
138	Basal characteristics of the main sticky spot on the ice plain of Whillans Ice Stream, Antarctica. <i>Earth and Planetary Science Letters</i> , 2016, 440, 12-19.	4.4	35
139	Ice-Core Analysis on the Siple Coast of West Antarctica. <i>Annals of Glaciology</i> , 1988, 11, 1-7.	1.4	34
140	Continuity comes first: recent progress in understanding subglacial deformation. <i>Geological Society Special Publication</i> , 2000, 176, 171-179.	1.3	34
141	Sediment deposition at the modern grounding zone of Whillans Ice Stream, West Antarctica. <i>Geophysical Research Letters</i> , 2013, 40, 3934-3939.	4.0	33
142	Ice thickness and isostatic imbalances in the Ross Embayment, West Antarctica: model results. <i>Global and Planetary Change</i> , 2004, 42, 265-278.	3.5	32
143	Characterization and formation of melt layers in polar snow: observations and experiments from West Antarctica. <i>Journal of Glaciology</i> , 2005, 51, 307-312.	2.2	32
144	Bedload component of glacially discharged sediment: Insights from the Matanuska Glacier, Alaska. <i>Geology</i> , 2003, 31, 7.	4.4	31

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145	Role of small ice shelves in sea-level rise. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	31
146	Sub-catchment melt and long-term stability of ice stream D, West Antarctica. <i>Geophysical Research Letters</i> , 2002, 29, 55-1-55-4.	4.0	30
147	Ice-cliff failure via retrogressive slumping. <i>Geology</i> , 2019, 47, 449-452.	4.4	30
148	Exploring till bed kinematics using AMS magnetic fabrics and pebble fabrics: the Weedsport drumlin field, New York State, USA. <i>Boreas</i> , 2012, 41, 31-41.	2.4	29
149	Interannual Arctic sea ice variability and associated winter weather patterns: A regional perspective for 1979â€“2014. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 14,433.	3.3	29
150	Polar Firn Densification and Grain Growth. <i>Annals of Glaciology</i> , 1982, 3, 7-11.	1.4	28
151	Is erosion by deforming subglacial sediments significant? (Toward till continuity). <i>Annals of Glaciology</i> , 1996, 22, 17-24.	1.4	26
152	A viscoelastic flowline model applied to tidal forcing of Bindschadler Ice Stream, West Antarctica. <i>Earth and Planetary Science Letters</i> , 2012, 319-320, 128-132.	4.4	25
153	Decoding ice sheet behavior using englacial layer slopes. <i>Geophysical Research Letters</i> , 2017, 44, 5561-5570.	4.0	24
154	Past rates of climate change in the Arctic. <i>Quaternary Science Reviews</i> , 2010, 29, 1716-1727.	3.0	23
155	Ice streamsâ€”fast, and faster?. <i>Comptes Rendus Physique</i> , 2004, 5, 723-734.	0.9	22
156	Initial effects of oceanic warming on a coupled oceanâ€”ice shelfâ€”ice stream system. <i>Earth and Planetary Science Letters</i> , 2009, 287, 483-487.	4.4	22
157	Subglacial bathymetry and sediment layer distribution beneath the Pine Island Glacier ice shelf, West Antarctica, modeled using aerogravity and autonomous underwater vehicle data. <i>Annals of Glaciology</i> , 2013, 54, 27-32.	1.4	22
158	Concerning the Deposition and Diagenesis of Strata in Polar Firn. <i>Journal of Glaciology</i> , 1988, 34, 283-290.	2.2	22
159	Effect of orbitalâ€”scale climate cycling and meltwater drainage on ice sheet grounding line migration. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	21
160	A water-piracy hypothesis for the stagnation of Ice Stream C, Antarctica. <i>Annals of Glaciology</i> , 1994, 20, 187-194.	1.4	20
161	Increasing temperature forcing reduces the Greenland Ice Sheetâ€™s response time scale. <i>Climate Dynamics</i> , 2015, 45, 2001-2011.	3.8	20
162	The impact of spatially-variable basal properties on outlet glacier flow. <i>Earth and Planetary Science Letters</i> , 2019, 515, 200-208.	4.4	20

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163	Enhanced Firn Densification in High-Accumulation Shear Margins of the NE Greenland Ice Stream. Journal of Geophysical Research F: Earth Surface, 2019, 124, 365-382.	2.8	20
164	A 15-year West Antarctic climatology from six automatic weather station temperature and pressure records. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	19
165	Application of Constitutive Friction Laws to Glacier Seismicity. Geophysical Research Letters, 2020, 47, e2020GL088964.	4.0	19
166	Three-Dimensional Coordination Number from Two-Dimensional Measurements: A New Method. Journal of Glaciology, 1986, 32, 391-396.	2.2	18
167	Conditions for bubble elongation in cold ice-sheet ice. Journal of Glaciology, 1999, 45, 147-153.	2.2	18
168	Late-Holocene climate evolution at the WAIS Divide site, West Antarctica: bubble number-density estimates. Journal of Glaciology, 2011, 57, 629-638.	2.2	18
169	Characterization of Regional-Scale CO ₂ Transport Uncertainties in an Ensemble with Flow-Dependent Transport Errors. Geophysical Research Letters, 2019, 46, 4049-4058.	4.0	18
170	On the nature of the dirty ice at the bottom of the GISP2 ice core. Earth and Planetary Science Letters, 2010, 299, 466-473.	4.4	17
171	Mechanical and hydrologic properties of Whillans Ice Stream till: Implications for basal strength and stick-slip failure. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1295-1309.	2.8	17
172	Field evidence for the recognition of glaciohydrologic supercooling. , 1999, , .		15
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