Richard Alley

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8058717/publications.pdf

Version: 2024-02-01

208 papers	24,755 citations	7561 77 h-index	7511 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. Geology, 1997, 25, 483.	2.0	1,577
2	Abrupt increase in Greenland snow accumulation at the end of the Younger Dryas event. Nature, 1993, 362, 527-529.	13.7	1,149
3	Abrupt Climate Change. Science, 2003, 299, 2005-2010.	6.0	1,017
4	The Younger Dryas cold interval as viewed from central Greenland. Quaternary Science Reviews, 2000, 19, 213-226.	1.4	752
5	The 8k event: cause and consequences of a major Holocene abrupt climate change. Quaternary Science Reviews, 2005, 24, 1123-1149.	1.4	727
6	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.	13.7	639
7	Deformation of till beneath ice stream B, West Antarctica. Nature, 1986, 322, 57-59.	13.7	527
8	Validity of the temperature reconstruction from water isotopes in ice cores. Journal of Geophysical Research, 1997, 102, 26471-26487.	3.3	524
9	Ice-Sheet and Sea-Level Changes. Science, 2005, 310, 456-460.	6.0	463
10	Large Arctic Temperature Change at the Wisconsin-Holocene Glacial Transition. Science, 1995, 270, 455-458.	6.0	442
11	Paleoclimatic Evidence for Future Ice-Sheet Instability and Rapid Sea-Level Rise. Science, 2006, 311, 1747-1750.	6.0	400
12	Seismic measurements reveal a saturated porous layer beneath an active Antarctic ice stream. Nature, 1986, 322, 54-57.	13.7	391
13	Changes in Atmospheric Circulation and Ocean Ice Cover over the North Atlantic During the Last 41,000 Years. Science, 1994, 263, 1747-1751.	6.0	368
14	Potential Antarctic Ice Sheet retreat driven by hydrofracturing and ice cliff failure. Earth and Planetary Science Letters, 2015, 412, 112-121.	1.8	362
15	Deglacial changes in ocean circulation from an extended radiocarbon calibration. Nature, 1998, 391, 65-68.	13.7	360
16	Till beneath ice stream B: 3. Till deformation: Evidence and implications. Journal of Geophysical Research, 1987, 92, 8921-8929.	3.3	352
17	Assessment of the importance of ice-shelf buttressing to ice-sheet flow. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	352
18	How glaciers entrain and transport basal sediment: Physical constraints. Quaternary Science Reviews, 1997, 16, 1017-1038.	1.4	312

#	Article	IF	Citations
19	Sedimentation beneath ice shelves â€" the view from ice stream B. Marine Geology, 1989, 85, 101-120.	0.9	310
20	The polar regions in a 2Â°C warmer world. Science Advances, 2019, 5, eaaw9883.	4.7	289
21	THE DEGLACIATION OF THE NORTHERN HEMISPHERE: A Global Perspective. Annual Review of Earth and Planetary Sciences, 1999, 27, 149-182.	4.6	275
22	Flow-law hypotheses for ice-sheet modeling. Journal of Glaciology, 1992, 38, 245-256.	1.1	268
23	Stability of the West Antarctic ice sheet in a warming world. Nature Geoscience, 2011, 4, 506-513.	5.4	261
24	Tidally Controlled Stick-Slip Discharge of a West Antarctic Ice. Science, 2003, 301, 1087-1089.	6.0	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.	1.1	242
27	Influence of subglacial geology on the position of a West Antarctic ice stream from seismic observations. Nature, 1998, 394, 62-65.	13.7	234
28	Temperature and precipitation history of the Arctic. Quaternary Science Reviews, 2010, 29, 1679-1715.	1.4	226
29	The Paris Climate Agreement and future sea-level rise from Antarctica. Nature, 2021, 593, 83-89.	13.7	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.	13.7	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.	1.1	207
33	In search of ice-stream sticky spots. Journal of Glaciology, 1993, 39, 447-454.	1.1	206
34	Changes in the West Antarctic Ice Sheet. Science, 1991, 254, 959-963.	6.0	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

#	Article	IF	Citations
37	Implications of increased Greenland surface melt under global-warming scenarios: ice-sheet simulations. Quaternary Science Reviews, 2004, 23, 1013-1027.	1.4	197
38	Ice-Sheet Response to Oceanic Forcing. Science, 2012, 338, 1172-1176.	6.0	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.	3.3	185
40	Fabrics in Polar Ice Sheets: Development and Prediction. Science, 1988, 240, 493-495.	6.0	179
41	History of the Greenland Ice Sheet: paleoclimatic insights. Quaternary Science Reviews, 2010, 29, 1728-1756.	1.4	177
42	Effect of Sedimentation on Ice-Sheet Grounding-Line Stability. Science, 2007, 315, 1838-1841.	6.0	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.	6.0	164
45	Stagnation of Ice Stream C, West Antarctica by water piracy. Geophysical Research Letters, 1997, 24, 265-268.	1.5	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.	1.1	151
48	Stabilizing feedbacks in glacier-bed erosion. Nature, 2003, 424, 758-760.	13.7	150
49	Ice Core Records of Atmospheric N2O Covering the Last 106,000 Years. Science, 2003, 301, 945-948.	6.0	150
50	Iceâ€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, .	1.5	136
52	Seasonal to decadal scale variations in the surface velocity of Jakobshavn Isbrae, Greenland: Observation and modelâ€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.	1.4	130
54	Mapping c-axis fabrics to study physical processes in ice. Journal of Glaciology, 1995, 41, 197-203.	1.1	128

#	Article	IF	Citations
55	Access of surface meltwater to beds of sub-freezing glaciers: preliminary insights. Annals of Glaciology, 2005, 40, 8-14.	2.8	120
56	Wally Was Right: Predictive Ability of the North Atlantic â€œConveyor Beltâ€•Hypothesis for Abrupt Climate Change. Annual Review of Earth and Planetary Sciences, 2007, 35, 241-272.	4.6	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. Global and Planetary Change, 2017, 153, 16-34.	1.6	118
58	Calibration of the Î´18O isotopic paleothermometer for central Greenland, using borehole temperatures. Journal of Glaciology, 1994, 40, 341-349.	1.1	117
59	Tidal forcing of basal seismicity of ice stream C, West Antarctica, observed far inland. Journal of Geophysical Research, 1997, 102, 15183-15196.	3.3	116
60	Advances in weather prediction. Science, 2019, 363, 342-344.	6.0	116
61	Till beneath ice stream B: 2. Structure and continuity. Journal of Geophysical Research, 1987, 92, 8913-8920.	3.3	115
62	A 10Be chronology of lateglacial and Holocene mountain glaciation in the Scoresby Sund region, east Greenland: implications for seasonality during lateglacial time. Quaternary Science Reviews, 2008, 27, 2273-2282.	1.4	112
63	Glaciohydraulic supercooling: a freeze-on mechanism to create stratified, debris-rich basal ice: II. Theory. Journal of Glaciology, 1998, 44, 563-569.	1.1	111
64	Concerning the Deposition and Diagenesis of Strata in Polar Firn. Journal of Glaciology, 1988, 34, 283-290.	1.1	110
65	Basal mechanics of ice streams: Insights from the stickâ€slip motion of Whillans Ice Stream, West Antarctica. Journal of Geophysical Research, 2009, 114, .	3.3	110
66	Ice-Core Analysis on the Siple Coast of West Antarctica. Annals of Glaciology, 1988, 11, 1-7.	2.8	109
67	Deglacial temperature history of West Antarctica. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14249-14254.	3.3	105
68	Grain Growth in Polar Ice: I. Theory. Journal of Glaciology, 1986, 32, 415-424.	1.1	98
69	A northern lead in the orbital band: northâ€“south phasing of Ice-Age events. Quaternary Science Reviews, 2002, 21, 431-441.	1.4	97
70	Greenland was nearly ice-free for extended periods during the Pleistocene. Nature, 2016, 540, 252-255.	13.7	95
71	Grain Growth in Polar Ice: II. Application. Journal of Glaciology, 1986, 32, 425-433.	1.1	94
72	Laboratory study of the frictional rheology of sheared till. Journal of Geophysical Research, 2008, 113, .	3.3	94

#	Article	IF	Citations
73	Continued deceleration of Whillans Ice Stream, West Antarctica. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	93
74	Dating the Siple Dome (Antarctica) ice core by manual and computer interpretation of annual layering. Journal of Glaciology, 2004, 50, 453-461.	1.1	90
75	A Simple Law for Ice-Shelf Calving. Science, 2008, 322, 1344-1344.	6.0	88
76	Dynamic (in)stability of Thwaites Glacier, West Antarctica. Journal of Geophysical Research F: Earth Surface, 2013, 118, 638-655.	1.0	88
77	The West Antarctic Ice Sheet and Long Term Climate Policy. Climatic Change, 2004, 64, 1-10.	1.7	84
78	Changes in continental and sea-salt atmospheric loadings in central Greenland during the most recent deglaciation: model-based estimates. Journal of Glaciology, 1995, 41, 503-514.	1.1	83
79	Oceanic Forcing of Ice-Sheet Retreat: West Antarctica and More. Annual Review of Earth and Planetary Sciences, 2015, 43, 207-231.	4.6	83
80	Tidal pacing, skipped slips and the slowdown of Whillans Ice Stream, Antarctica. Journal of Glaciology, 2014, 60, 795-807.	1.1	81
81	Influence of ice-sheet geometry and supraglacial lakes on seasonal ice-flow variability. Cryosphere, 2013, 7, 1185-1192.	1.5	80
82	Ice-shelf tidal flexure and subglacial pressure variations. Earth and Planetary Science Letters, 2013, 361, 422-428.	1.8	79
83	Ice sheet mass balance and sea level. Antarctic Science, 2009, 21, 413-426.	0.5	78
84	Texture of Polar Firn for Remote Sensing. Annals of Glaciology, 1987, 9, 1-4.	2.8	77
85	Summertime formation of Depth Hoar in central Greenland. Geophysical Research Letters, 1990, 17, 2393-2396.	1.5	76
86	Dilatant till facilitates ice-stream flow in northeast Greenland. Earth and Planetary Science Letters, 2014, 401, 57-69.	1.8	73
87	Glacial erosion: status and outlook. Annals of Glaciology, 2019, 60, 1-13.	2.8	73
88	Glaciohydraulic supercooling: a freeze-on mechanism to create stratified, debris-rich basal ice: II. Theory. Journal of Glaciology, 1998, 44, 563-569.	1.1	72
89	Sensitivity of Pine Island Glacier to observed ocean forcing. Geophysical Research Letters, 2016, 43, 10,817.	1.5	69
90	Outburst flooding and the initiation of ice-stream surges in response to climatic cooling: A hypothesis. Geomorphology, 2006, 75, 76-89.	1.1	68

#	Article	IF	Citations
91	Subglacial Lake Whillans â€" Ice-penetrating radar and GPS observations of a shallow active reservoir beneath a West Antarctic ice stream. Earth and Planetary Science Letters, 2012, 331-332, 237-245.	1.8	66
92	Motion of an Antarctic glacier by repeated tidally modulated earthquakes. Nature Geoscience, 2012, 5, 623-626.	5.4	66
93	The Robustness of Midlatitude Weather Pattern Changes due to Arctic Sea Ice Loss. Journal of Climate, 2016, 29, 7831-7849.	1.2	65
94	Grain Growth in Polar Ice: I. Theory. Journal of Glaciology, 1986, 32, 415-424.	1.1	64
95	Is erosion by deforming subglacial sediments significant? (Toward till continuity). Annals of Glaciology, 1996, 22, 17-24.	2.8	64
96	Subglacial sediments as a control on the onset and location of two Siple Coast ice streams, West Antarctica. Journal of Geophysical Research, 2006, 111, .	3.3	64
97	Antarctic surface temperature and elevation during the Last Glacial Maximum. Science, 2021, 372, 1097-1101.	6.0	61
98	Seismic observations of transient subglacial waterâ€flow beneath MacAyeal Ice Stream, West Antarctica. Geophysical Research Letters, 2009, 36, .	1.5	60
99	How high will the seas rise?. Science, 2016, 354, 1375-1377.	6.0	59
100	Polar Firn Densification and Grain Growth. Annals of Glaciology, 1982, 3, 7-11.	2.8	58
101	Estuaries beneath ice sheets. Geology, 2013, 41, 1159-1162.	2.0	58
102	Extensive storage of basal meltwater in the onset region of a major West Antarctic ice stream. Geology, 2007, 35, 251.	2.0	57
103	Rheology of Glacier Ice. Science, 1985, 227, 1335-1337.	6.0	56
104	Effects of basalâ€melting distribution on the retreat of iceâ€shelf grounding lines. Geophysical Research Letters, 2008, 35, .	1.5	56
105	Initial results from geophysical surveys and shallow coring of the Northeast Greenland Ice Stream (NEGIS). Cryosphere, 2014, 8, 1275-1287.	1.5	56
106	A water-piracy hypothesis for the stagnation of Ice Stream C, Antarctica. Annals of Glaciology, 1994, 20, 187-194.	2.8	56
107	How can low-pressure channels and deforming tills coexist subglacially?. Journal of Glaciology, 1992, 38, 200-207.	1.1	55
108	Ice sheets, global warming, and article 2 of the UNFCCC. Climatic Change, 2005, 68, 257-267.	1.7	55

#	Article	IF	Citations
109	Seismic and geodetic evidence for groundingâ€line control of Whillans Ice Stream stickâ€slip events. Journal of Geophysical Research F: Earth Surface, 2014, 119, 333-348.	1.0	55
110	Subglacial Lake Whillans â€" Seismic observations of a shallow active reservoir beneath a West Antarctic ice stream. Earth and Planetary Science Letters, 2012, 331-332, 201-209.	1.8	54
111	Twenty-first century sea-level rise could exceed IPCC projections for strong-warming futures. One Earth, 2020, 3, 691-703.	3.6	52
112	Ice Stream C, Antarctica, sticky spots detected by microearthquake monitoring. Annals of Glaciology, 1994, 20, 183-186.	2.8	52
113	Basal conditions at the grounding zone of Whillans Ice Stream, West Antarctica, from iceâ€penetrating radar. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1954-1983.	1.0	50
114	Ice-sheet mass balance: assessment, attribution and prognosis. Annals of Glaciology, 2007, 46, 1-7.	2.8	49
115	Linking postglacial landscapes to glacier dynamics using swath radar at Thwaites Glacier, Antarctica. Geology, 2020, 48, 268-272.	2.0	49
116	The effects of entrained debris on the basal sliding stability of a glacier. Journal of Geophysical Research F: Earth Surface, 2013, 118, 656-666.	1.0	47
117	FIRN DENSIFICATION BY GRAIN-BOUNDARY SLIDING : A FIRST MODEL. Journal De Physique Colloque, 1987, 48, C1-249-C1-256.	0.2	43
118	Ice Stream C, Antarctica, sticky spots detected by microearthquake monitoring. Annals of Glaciology, 1994, 20, 183-186.	2.8	42
119	Developing a bubble number-density paleoclimatic indicator for glacier ice. Journal of Glaciology, 2006, 52, 358-364.	1.1	42
120	Englacial seismic reflectivity: imaging crystal-orientation fabric in West Antarctica. Journal of Glaciology, 2011, 57, 639-650.	1.1	42
121	TOWARDS A HYDROLOGICAL MODEL FOR COMPUTERIZED ICE-SHEET SIMULATIONS. Hydrological Processes, 1996, 10, 649-660.	1.1	41
122	Subglacial thermal balance permits ongoing grounding-line retreat along the Siple Coast of West Antarctica. Annals of Glaciology, 2003, 36, 251-256.	2.8	41
123	Surface elevation changes at the front of the Ross Ice Shelf: Implications for basal melting. Journal of Geophysical Research, 2011, 116, .	3.3	41
124	Physical properties of the WAIS Divide ice core. Journal of Glaciology, 2014, 60, 1181-1198.	1.1	41
125	Complex fabric development revealed by englacial seismic reflectivity: Jakobshavn IsbrÃ¦, Greenland. Geophysical Research Letters, 2008, 35, .	1.5	40
126	Ice sheet grounding zone stabilization due to till compaction. Geophysical Research Letters, 2013, 40, 5406-5411.	1.5	40

#	Article	IF	Citations
127	Basal conditions and ice dynamics inferred from radar-derived internal stratigraphy of the northeast Greenland ice stream. Annals of Glaciology, 2014, 55, 127-137.	2.8	40
128	Relating bed character and subglacial morphology using seismic data from Thwaites Glacier, West Antarctica. Earth and Planetary Science Letters, 2019, 507, 199-206.	1.8	40
129	Basal-crevasse-fill origin of laminated debris bands at Matanuska Glacier, Alaska, U.S.A.. Journal of Glaciology, 2001, 47, 412-422.	1.1	39
130	Modeling Ice-Sheet Flow. Science, 2012, 336, 551-552.	6.0	39
131	Observing and modeling the influence of layering on bubble trapping in polar firn. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2558-2574.	1.2	39
132	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.	1.3	38
133	Understanding Glacier Flow in Changing Times. Science, 2008, 322, 1061-1062.	6.0	37
134	Troughs developed in ice-stream shear margins precondition ice shelves for ocean-driven breakup. Science Advances, 2019, 5, eaax2215.	4.7	37
135	Preliminary results of tritium analyses in basal ice, Matanuska Glacier, Alaska, U.S.A.: evidence for subglacial ice accretion. Annals of Glaciology, 1996, 22, 126-133.	2.8	36
136	Accelerated subglacial erosion in response to stick-slip motion. Geology, 2013, 41, 159-162.	2.0	36
137	Preliminary firn-densification model with 38-site dataset. Journal of Glaciology, 2001, 47, 671-676.	1.1	35
138	Basal characteristics of the main sticky spot on the ice plain of Whillans Ice Stream, Antarctica. Earth and Planetary Science Letters, 2016, 440, 12-19.	1.8	35
139	Ice-Core Analysis on the Siple Coast of West Antarctica. Annals of Glaciology, 1988, 11, 1-7.	2.8	34
140	Continuity comes first: recent progress in understanding subglacial deformation. Geological Society Special Publication, 2000, 176, 171-179.	0.8	34
141	Sediment deposition at the modern grounding zone of Whillans Ice Stream, West Antarctica. Geophysical Research Letters, 2013, 40, 3934-3939.	1.5	33
142	Ice thickness and isostatic imbalances in the Ross Embayment, West Antarctica: model results. Global and Planetary Change, 2004, 42, 265-278.	1.6	32
143	Characterization and formation of melt layers in polar snow: observations and experiments from West Antarctica. Journal of Glaciology, 2005, 51, 307-312.	1.1	32
144	Bedload component of glacially discharged sediment: Insights from the Matanuska Glacier, Alaska. Geology, 2003, 31, 7.	2.0	31

#	Article	IF	Citations
145	Role of small ice shelves in sea-level rise. Geophysical Research Letters, 2006, 33, .	1.5	31
146	Sub-catchment melt and long-term stability of ice stream D, West Antarctica. Geophysical Research Letters, 2002, 29, 55-1-55-4.	1.5	30
147	Ice-cliff failure via retrogressive slumping. Geology, 2019, 47, 449-452.	2.0	30
148	Exploring till bed kinematics using AMS magnetic fabrics and pebble fabrics: the Weedsport drumlin field, New York State, USA. Boreas, 2012, 41, 31-41.	1.2	29
149	Interannual Arctic sea ice variability and associated winter weather patterns: A regional perspective for 1979â€“2014. Journal of Geophysical Research D: Atmospheres, 2016, 121, 14,433.	1.2	29
150	Polar Firn Densification and Grain Growth. Annals of Glaciology, 1982, 3, 7-11.	2.8	28
151	Is erosion by deforming subglacial sediments significant? (Toward till continuity). Annals of Glaciology, 1996, 22, 17-24.	2.8	26
152	A viscoelastic flowline model applied to tidal forcing of Bindschadler Ice Stream, West Antarctica. Earth and Planetary Science Letters, 2012, 319-320, 128-132.	1.8	25
153	Decoding ice sheet behavior using englacial layer slopes. Geophysical Research Letters, 2017, 44, 5561-5570.	1.5	24
154	Past rates of climate change in the Arctic. Quaternary Science Reviews, 2010, 29, 1716-1727.	1.4	23
155	Ice streamsâ€”fast, and faster?. Comptes Rendus Physique, 2004, 5, 723-734.	0.3	22
156	Initial effects of oceanic warming on a coupled oceanâ€“ice shelfâ€“ice stream system. Earth and Planetary Science Letters, 2009, 287, 483-487.	1.8	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. Annals of Glaciology, 2013, 54, 27-32.	2.8	22
158	Concerning the Deposition and Diagenesis of Strata in Polar Firn. Journal of Glaciology, 1988, 34, 283-290.	1.1	22
159	Effect of orbitalâ€scale climate cycling and meltwater drainage on ice sheet grounding line migration. Journal of Geophysical Research, 2010, 115, .	3.3	21
160	A water-piracy hypothesis for the stagnation of Ice Stream C, Antarctica. Annals of Glaciology, 1994, 20, 187-194.	2.8	20
161	Increasing temperature forcing reduces the Greenland Ice Sheetâ€™s response time scale. Climate Dynamics, 2015, 45, 2001-2011.	1.7	20
162	The impact of spatially-variable basal properties on outlet glacier flow. Earth and Planetary Science Letters, 2019, 515, 200-208.	1.8	20

#	Article	IF	Citations
163	Enhanced Firn Densification in Highâ€Accumulation Shear Margins of the NE Greenland Ice Stream. Journal of Geophysical Research F: Earth Surface, 2019, 124, 365-382.	1.0	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.	1.5	19
166	Three-Dimensional Coordination Number from Two-Dimensional Measurements: A New Method. Journal of Glaciology, 1986, 32, 391-396.	1.1	18
167	Conditions for bubble elongation in cold ice-sheet ice. Journal of Glaciology, 1999, 45, 147-153.	1.1	18
168	Late-Holocene climate evolution at the WAIS Divide site, West Antarctica: bubble number-density estimates. Journal of Glaciology, 2011, 57, 629-638.	1.1	18
169	Characterization of Regionalâ€Scale CO₂ Transport Uncertainties in an Ensemble with Flowâ€Dependent Transport Errors. Geophysical Research Letters, 2019, 46, 4049-4058.	1.5	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.	1.8	17
171	Mechanical and hydrologic properties of Whillans Ice Stream till: Implications for basal strength and stickâ€slip failure. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1295-1309.	1.0	17
172	Field evidence for the recognition of glaciohydrologic supercooling. , 1999, , .		15
173	Differentiating bubble-free layers from melt layers in ice cores using noble gases. Journal of Glaciology, 2015, 61, 585-594.	1.1	15
174	Lithospheric Structure of Greenland From Ambient Noise and Earthquake Surface Wave Tomography. Journal of Geophysical Research: Solid Earth, 2018, 123, 7850-7876.	1.4	15
175	Bathymetry and geological structures beneath the Ross Ice Shelf at the mouth of Whillans Ice Stream, West Antarctica, modeled from groundâ€based gravity measurements. Journal of Geophysical Research: Solid Earth, 2013, 118, 4535-4546.	1.4	14
176	Controls on Larsen C Ice Shelf Retreat From a 60â€Year Satellite Data Record. Journal of Geophysical Research F: Earth Surface, 2022, 127, .	1.0	14
177	Antarctic sea ice: a self-organizing map-based perspective. Annals of Glaciology, 2007, 46, 391-396.	2.8	13
178	Reliability of ice-core science: historical insights. Journal of Glaciology, 2010, 56, 1095-1103.	1.1	13
179	A heated mirror for future climate. Science, 2016, 352, 151-152.	6.0	13
180	Grain Growth in Polar Ice: II. Application. Journal of Glaciology, 1986, 32, 425-433.	1.1	13

#	Article	IF	Citations
181	Enhancement of volcanism and geothermal heat flux by iceâ€age cycling: A stress modeling study of Greenland. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1456-1471.	1.0	12
182	Five millennia of surface temperatures and ice core bubble characteristics from the WAIS Divide deep core, West Antarctica. Paleoceanography, 2016, 31, 416-433.	3.0	12
183	Possible Role for Tectonics in the Evolving Stability of the Greenland Ice Sheet. Journal of Geophysical Research F: Earth Surface, 2019, 124, 97-115.	1.0	12
184	Bedforms of Thwaites Glacier, West Antarctica: Character and Origin. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006339.	1.0	12
185	Effect of Stratigraphy on Radar-Altimetry Data Collected Over Ice Sheets. Annals of Glaciology, 1988, 11, 60-63.	2.8	11
186	K.M. Cuffey and W.S.B. Paterson. 2010. The physics of glaciers. Fourth edition. Amsterdam, etc., Academic Press. 704pp. ISBN-10: 0-123694-61-2, ISBN-13: 978-0-123-69461-4, hardback, Â£60.99/â‚¬71.95/US$99.95.. Journal of Glaciology, 2011, 57, 383-384.	1.9	10
187	Surface formation, preservation, and history of low-porosity crusts at the WAIS Divide site, West Antarctica. Cryosphere, 2018, 12, 325-341.	1.5	10
188	Bed-type variability and till (dis)continuity beneath Thwaites Glacier, West Antarctica. Annals of Glaciology, 2019, 60, 82-90.	2.8	10
189	Wet subglacial bedforms of the NE Greenland Ice Stream shear margins. Annals of Glaciology, 2019, 60, 91-99.	2.8	10
190	Interpretation of topography and bed properties beneath Thwaites Glacier, West Antarctica using seismic reflection methods. Earth and Planetary Science Letters, 2020, 550, 116543.	1.8	10
191	Meltwater drainage and iceberg calving observed in high-spatiotemporal resolution at Helheim Glacier, Greenland. Journal of Glaciology, 2022, 68, 812-828.	1.1	10
192	Ice-core insights into the flow and shut-down of Ice Stream C, West Antarctica. Annals of Glaciology, 2003, 37, 123-128.	2.8	9
193	A continuum model (PSUMEL1) of ice mÃ©lange and its role during retreat of the Antarctic Ice Sheet. Geoscientific Model Development, 2018, 11, 5149-5172.	1.3	9
194	Conditions for bubble elongation in cold ice-sheet ice. Journal of Glaciology, 1999, 45, 147-153.	1.1	9
195	Poststagnation Retreat of Kamb Ice Stream's Grounding Zone. Geophysical Research Letters, 2017, 44, 9815-9822.	1.5	8
196	A Viscoelastic Model of Ice Stream Flow with Application to Stick-Slip Motion. Frontiers in Earth Science, 2016, 4, .	0.8	6
197	Grounding zone subglacial properties from calibrated active-source seismic methods. Cryosphere, 2021, 15, 1863-1880.	1.5	6
198	Possible role for dust or other northern forcing of ice-age carbon dioxide changes. Quaternary Science Reviews, 2006, 25, 3198-3206.	1.4	5

#	Article	IF	Citations
199	Characteristics of the sticky spot of Kamb Ice Stream, West Antarctica. Journal of Geophysical Research F: Earth Surface, 2017, 122, 641-653.	1.0	5
200	Magnetic anisotropy and debris-dependent rheological heterogeneity within stratified basal ice. Journal of Glaciology, 2019, 65, 770-779.	1.1	5
201	Temperatureâ€Driven Bubble Migration as Proxy for Internal Bubble Pressures and Bubble Trapping Function in Ice Cores. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10264-10282.	1.2	3
202	Three-Dimensional Coordination Number from Two-Dimensional Measurements: A New Method. Journal of Glaciology, 1986, 32, 391-396.	1.1	3
203	Inland Ice-Sheet Thinning Near Dome C, East Antarctica, Caused by Post-Wisconsinan Sea-Level Rise (Abstract). Annals of Glaciology, 1984, 5, 199-200.	2.8	2
204	"C"ing Arctic Climate with Black Ice. Science, 2007, 317, 1333-1334.	6.0	2
205	Instruments and methods: a case study of ice core bubbles as strain indicators. Annals of Glaciology, 2019, 60, 8-19.	2.8	2
206	Evaluation of ice-stream model sensitivities for parameter estimation. Earth and Planetary Science Letters, 2019, 516, 49-55.	1.8	2
207	Inland Ice-Sheet Thinning Near Dome C, East Antarctica, Caused by Post-Wisconsinan Sea-Level Rise (Abstract). Annals of Glaciology, 1984, 5, 199-200.	2.8	1
208	Multi-decadal basal slip enhancement at Saskatchewan Glacier, Canadian Rocky Mountains. Journal of Glaciology, 2023, 69, 71-86.	1.1	1