Nozomu Takeuchi

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Structure, Formation, and Darkening Process of Albedo-reducing Material (Cryoconite) on a Himalayan Glacier: A Granular Algal Mat Growing on the Glacier. Arctic, Antarctic, and Alpine Research, 2001, 33, 115-122.	0.4	192
2	Distribution of antibiotic resistance genes in glacier environments. Environmental Microbiology Reports, 2013, 5, 127-134.	1.0	161
3	Cryoconite. Progress in Physical Geography, 2016, 40, 66-111.	1.4	160
4	Structure, Formation, and Darkening Process of Albedo-Reducing Material (Cryoconite) on a Himalayan Glacier: A Granular Algal Mat Growing on the Glacier. Arctic, Antarctic, and Alpine Research, 2001, 33, 115.	0.4	136
5	Climatic and atmospheric circulation pattern variability from ice-core isotope/geochemistry records (Altai, Tien Shan and Tibet). Annals of Glaciology, 2006, 43, 49-60.	2.8	130
6	3D effects of sharp boundaries at the borders of the African and Pacific Superplumes: Observation and modeling. Earth and Planetary Science Letters, 2005, 233, 137-153.	1.8	116
7	Optical characteristics of cryoconite (surface dust) on glaciers: the relationship between light absorbency and the property of organic matter contained in the cryoconite. Annals of Glaciology, 2002, 34, 409-414.	2.8	112
8	Complete synthetic seismograms up to 2 Hz for transversely isotropic spherically symmetric media. Geophysical Journal International, 2006, 164, 411-424.	1.0	100
9	Onset of calving at supraglacial lakes on debris-covered glaciers of the Nepal Himalaya. Journal of Glaciology, 2009, 55, 909-917.	1.1	96
10	The altitudinal distribution of snow algae on an Alaska glacier (Gulkana Glacier in the Alaska Range). Hydrological Processes, 2001, 15, 3447-3459.	1.1	91
11	Optimally accurate second order time-domain finite difference scheme for computing synthetic seismograms in 2-D and 3-D media. Physics of the Earth and Planetary Interiors, 2000, 119, 99-131.	0.7	90
12	Characteristics of Surface Dust on Ürümqi Glacier No. 1 in the Tien Shan Mountains, China. Arctic, Antarctic, and Alpine Research, 2008, 40, 744-750.	0.4	89
13	Structure and formation process of cryoconite granules on Ürümqi glacier No. 1 , Tien Shan, China. Annals of Glaciology, 2010, 51, 9-14.	2.8	85
14	Spatial distribution and abundance of red snow algae on the Harding Icefield, Alaska derived from a satellite image. Geophysical Research Letters, 2006, 33, .	1.5	77
15	What animals can live in cryoconite holes? A faunal review. Journal of Zoology, 2015, 295, 159-169.	0.8	75
16	Bipolar dispersal of red-snow algae. Nature Communications, 2018, 9, 3094.	5.8	75
17	The nitrogen cycle in cryoconites: naturally occurring nitrificationâ€denitrification granules on a glacier. Environmental Microbiology, 2014, 16, 3250-3262.	1.8	72
18	Taxon interactions control the distributions of cryoconite bacteria colonizing a High Arctic ice cap. Molecular Ecology, 2016, 25, 3752-3767.	2.0	67

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19	A Snow Algal Community on Tyndall Glacier in the Southern Patagonia Icefield, Chile. Arctic, Antarctic, and Alpine Research, 2004, 36, 92-99.	0.4	60
20	An Observation of PKJKP: Inferences on Inner Core Shear Properties. Science, 2005, 308, 1453-1455.	6.0	58
21	Microbial community variation in cryoconite granules on Qaanaaq Glacier, NW Greenland. FEMS Microbiology Ecology, 2016, 92, fiw127.	1.3	58
22	Seasonal and altitudinal variations in snow algal communities on an Alaskan glacier (Gulkana glacier) Tj ETQq0 () 0 rgBT /(2:2	Overlock 10 Tf
23	Whole mantle SH velocity model constrained by waveform inversion based on three-dimensional Born kernels. Geophysical Journal International, 2007, 169, 1153-1163.	1.0	55
24	High Mitochondrial Diversity in a New Water Bear Species (Tardigrada: Eutardigrada) from Mountain Glaciers in Central Asia, with the Erection of a New Genus <i>Cryoconicus</i> . Annales Zoologici, 2018, 68, 179-201.	0.1	51
25	A snow algal community on Akkem glacier in the Russian Altai mountains. Annals of Glaciology, 2006, 43, 378-384.	2.8	50
26	Himalayan ice-core dating with snow algae. Journal of Glaciology, 2000, 46, 335-340.	1.1	49
27	Taxonomic re-examination of "Chloromonas nivalis (Volvocales, Chlorophyceae) zygotes―from Japan and description of C. muramotoi sp. nov PLoS ONE, 2019, 14, e0210986.	1.1	49
28	Complete synthetic seismograms for 3-D heterogeneous Earth models computed using modified DSM operators and their applicability to inversion for Earth structure. Physics of the Earth and Planetary Interiors, 2000, 119, 25-36.	0.7	48
29	Temporal and spatial variations in spectral reflectance and characteristics of surface dust on Gulkana Glacier, Alaska Range. Journal of Glaciology, 2009, 55, 701-709.	1.1	48
30	Favorable climatic regime for maintaining the present-day geometry of the Gregoriev Glacier, Inner Tien Shan. Cryosphere, 2011, 5, 539-549.	1.5	48
31	Stable-isotope time series and precipitation origin from firn-core and snow samples, Altai glaciers, Siberia. Journal of Glaciology, 2005, 51, 637-654.	1.1	47
32	Biogeography of cryoconite forming cyanobacteria on polar and Asian glaciers. Journal of Biogeography, 2017, 44, 2849-2861.	1.4	46
33	Inter-Annual and Geographical Variations in the Extent of Bare Ice and Dark Ice on the Greenland Ice Sheet Derived from MODIS Satellite Images. Frontiers in Earth Science, 2016, 4, .	0.8	45
34	Spatial variations in impurities (cryoconite) on glaciers in northwest Greenland. Bulletin of Glaciological Research, 2014, 32, 85-94.	0.5	43
35	Experimental evidence that microbial activity lowers the albedo of glaciers. Geochemical Perspectives Letters, 2016, , 106-116.	1.0	43
36	Field activities of the "Snow Impurity and Glacial Microbe effects on abrupt warming in the Arctic― (SIGMA) Project in Greenland in 2011-2013. Bulletin of Glaciological Research, 2014, 32, 3-20.	0.5	41

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37	Temporal variations of cryoconite holes and cryoconite coverage on the ablation ice surface of Qaanaaq Glacier in northwest Greenland. Annals of Glaciology, 2018, 59, 21-30.	2.8	40
38	Dating of seasonal snow/firn accumulation layers using pollen analysis. Journal of Glaciology, 2005, 51, 483-490.	1.1	39
39	Twentieth century dust lows and the weakening of the westerly winds over the Tibetan Plateau. Geophysical Research Letters, 2015, 42, 2434-2441.	1.5	39
40	DSM complete synthetic seismograms: P-SV, spherically symmetric, case. Geophysical Research Letters, 1994, 21, 1663-1666.	1.5	38
41	The COSY Project: verification of global seismic modeling algorithms. Physics of the Earth and Planetary Interiors, 2000, 119, 3-23.	0.7	38
42	Abrupt and moderate climate changes in the mid-latitudes of Asia during the Holocene. Journal of Glaciology, 2016, 62, 411-439.	1.1	37
43	A hole in the nematosphere: tardigrades and rotifers dominate the cryoconite hole environment, whereas nematodes are missing. Journal of Zoology, 2021, 313, 18-36.	0.8	36
44	Possible evidence for a double crossing phase transition in D″ beneath Central America from inversion of seismic waveforms. Geophysical Research Letters, 2007, 34, .	1.5	35
45	The disappearance of glaciers in the Tien Shan Mountains in Central Asia at the end of Pleistocene. Quaternary Science Reviews, 2014, 103, 26-33.	1.4	35
46	Census of bacterial microbiota associated with the glacier ice worm Mesenchytraeus solifugus. FEMS Microbiology Ecology, 2015, 91, .	1.3	35
47	Altitudinal Changes in a Bacterial Community on Gulkana Glacier in Alaska. Microbes and Environments, 2010, 25, 171-182.	0.7	33
48	Upper mantle tomography in the northwestern Pacific region using triplicated <i>P</i> waves. Journal of Geophysical Research: Solid Earth, 2014, 119, 7667-7685.	1.4	33
49	The Effect of Impurities on the Surface Melt of a Glacier in the Suntar-Khayata Mountain Range, Russian Siberia. Frontiers in Earth Science, 2015, 3, .	0.8	32
50	Biological albedo reduction on ice sheets, glaciers, and snowfields. Earth-Science Reviews, 2021, 220, 103728.	4.0	30
51	Extent of the lowâ€velocity region in the lowermost mantle beneath the western Pacific detected by the Vietnamese Broadband Seismograph Array. Geophysical Research Letters, 2008, 35, .	1.5	29
52	Cryoconite – From minerals and organic matter to bioengineered sediments on glacier's surfaces. Science of the Total Environment, 2022, 807, 150874.	3.9	29
53	Comparison of Accuracy and Efficiency of Time-domain Schemes for Calculating Synthetic Seismograms. Physics of the Earth and Planetary Interiors, 2000, 119, 75-97.	0.7	27
54	Cyanobacterial communities on Qiyi glacier, Qilian Shan, China. Annals of Glaciology, 2010, 51, 135-144.	2.8	26

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55	Intricate heterogeneous structures of the top 300km of the Earth's inner core inferred from global array data: I. Regional 1D attenuation and velocity profiles. Physics of the Earth and Planetary Interiors, 2014, 230, 15-27.	0.7	26
56	Metagenomic analyses highlight the symbiotic association between the glacier stonefly <i>Andiperla willinki</i> and its bacterial gut community. Environmental Microbiology, 2018, 20, 4170-4183.	1.8	25
57	Geographical variations in Sr and Nd isotopic ratios of cryoconite on Asian glaciers. Environmental Research Letters, 2014, 9, 045007.	2.2	24
58	Determination of intrinsic attenuation in the oceanic lithosphere-asthenosphere system. Science, 2017, 358, 1593-1596.	6.0	24
59	Thirty-year history of glacier melting in the Nepal Himalayas. Journal of Geophysical Research, 2006, 111, .	3.3	23
60	Application of real-time PCR array to the multiple detection of antibiotic resistant genes in glacier ice samples. Journal of General and Applied Microbiology, 2010, 56, 43-52.	0.4	23
61	Sr, Nd and Pb stable isotopes of surface dust on Ürümqi glacier No. 1 in western China. Annals of Glaciology, 2010, 51, 95-105.	2.8	23
62	Estimating high frequency energy radiation of large earthquakes by image deconvolution back-projection. Earth and Planetary Science Letters, 2016, 449, 155-163.	1.8	23
63	Observations and modelling of algal growth on a snowpack in north-western Greenland. Cryosphere, 2018, 12, 2147-2158.	1.5	23
64	Snow algal communities on glaciers in the Suntar-Khayata Mountain Range in eastern Siberia, Russia. Polar Science, 2016, 10, 227-238.	0.5	22
65	Capability of the penetrator seismometer system for lunar seismic event observation. Planetary and Space Science, 2009, 57, 751-763.	0.9	21
66	Estimation of net accumulation rate at a Patagonian glacier by ice core analyses using snow algae. Global and Planetary Change, 2007, 59, 236-244.	1.6	20
67	Mineralogical composition of cryoconite on glaciers in northwest Greenland. Bulletin of Glaciological Research, 2014, 32, 107-114.	0.5	19
68	Demographic analysis of cyanobacteria based on the mutation rates estimated from an ancient ice core. Heredity, 2018, 120, 562-573.	1.2	19
69	Redox stratification within cryoconite granules influences the nitrogen cycle on glaciers. FEMS Microbiology Ecology, 2020, 96, .	1.3	19
70	Seismic attenuation structure of the top half of the inner core beneath the northeastern Pacific. Geophysical Research Letters, 2010, 37, .	1.5	18
71	Artificial and natural radionuclides in cryoconite as tracers of supraglacial dynamics: Insights from the Morteratsch glacier (Swiss Alps). Catena, 2020, 191, 104577.	2.2	18
72	Depth-dependent attenuation structure of the inner core inferred from short-period Hi-net data. Physics of the Earth and Planetary Interiors, 2008, 167, 155-160.	0.7	17

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73	Variations in Sr and Nd Isotopic Ratios of Mineral Particles in Cryoconite in Western Greenland. Frontiers in Earth Science, 2016, 4, .	0.8	17
74	A Firn Densification Process in the High Accumulation Dome of Southeastern Greenland. Arctic, Antarctic, and Alpine Research, 2017, 49, 13-27.	0.4	17
75	Bacterial community changes with granule size in cryoconite and their susceptibility to exogenous nutrients on NW Greenland glaciers. FEMS Microbiology Ecology, 2019, 95, .	1.3	17
76	Variation in Albedo and Its Relationship With Surface Dust at Urumqi Glacier No. 1 in Tien Shan, China. Frontiers in Earth Science, 2020, 8, .	0.8	17
77	Snow algae in a Himalayan ice core: new environmental markers for ice-core analyses and their correlation with summer mass balance. Annals of Glaciology, 2006, 43, 148-153.	2.8	16
78	Concentrations and source variations of n-alkanes in a 21 m ice core and snow samples at Belukha glacier, Russian Altai mountains. Annals of Glaciology, 2006, 43, 142-147.	2.8	16
79	Chemical characteristics of pond waters within the debris area of Lirung Glacier in Nepal Himalaya. Journal of Limnology, 2007, 66, 71.	0.3	16
80	Physically based model of the contribution of red snow algal cells to temporal changes in albedo in northwest Greenland. Cryosphere, 2020, 14, 2087-2101.	1.5	16
81	A shallow ice core re-drilled on the Dunde Ice Cap, western China: recent changes in the Asian high mountains. Environmental Research Letters, 2009, 4, 045207.	2.2	15
82	Detection of ridge-like structures in the Pacific Large Low-Shear-Velocity Province. Earth and Planetary Science Letters, 2012, 319-320, 55-64.	1.8	14
83	Reevaluation of the reconstruction of summer temperatures from melt features in Belukha ice cores, Siberian Altai. Journal of Geophysical Research, 2011, 116, .	3.3	13
84	Evidence for propagation of cold-adapted yeast in an ice core from a Siberian Altai glacier. Journal of Geophysical Research, 2011, 116, .	3.3	13
85	Establishing the Timing of Chemical Deposition Events on Belukha Glacier, Altai Mountains, Russia, Using Pollen Analysis. Arctic, Antarctic, and Alpine Research, 2011, 43, 66-72.	0.4	13
86	Differential Monte Carlo method for computing seismogram envelopes and their partial derivatives. Journal of Geophysical Research: Solid Earth, 2016, 121, 3428-3444.	1.4	13
87	A fluidâ€rich layer along the Nankai trough megathrust fault off the Kii Peninsula inferred from receiver function inversion. Journal of Geophysical Research: Solid Earth, 2017, 122, 6524-6537.	1.4	13
88	Melting at the Edge of a Slab in the Deepest Mantle. Geophysical Research Letters, 2019, 46, 8000-8008.	1.5	13
89	Stochastic modeling of 3-D compositional distribution in the crust with Bayesian inference and application to geoneutrino observation in Japan. Physics of the Earth and Planetary Interiors, 2019, 288, 37-57.	0.7	13
90	Temporal changes in snow algal abundance on surface snow in Tohkamachi, Japan. Bulletin of Glaciological Research, 2016, 34, 21-31.	0.5	13

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91	Intricate heterogeneous structures of the top 300 km of the Earth's inner core inferred from global array data: II. Frequency dependence of inner core attenuation and its implication. Earth and Planetary Science Letters, 2014, 405, 231-243.	1.8	12
92	Non-linear waveform analysis for water-layer response and its application to high-frequency receiver function analysis using OBS array. Geophysical Journal International, 2016, 206, 1914-1920.	1.0	12
93	Heavy metal-polluted aerosols collected at a rural site, Northwest China. Journal of Earth Science (Wuhan, China), 2017, 28, 535-544.	1.1	12
94	Bacterial Microbiota Associated with the Clacier Ice Worm Is Dominated by Both Worm-Specific and Glacier-Derived Facultative Lineages. Microbes and Environments, 2017, 32, 32-39.	0.7	12
95	Spatial and Temporal Variations in Pigment and Species Compositions of Snow Algae on Mt. Tateyama in Toyama Prefecture, Japan. Frontiers in Plant Science, 2021, 12, 689119.	1.7	12
96	Accurate numerical methods for solving the elastic equation of motion for arbitrary source locations. Geophysical Journal International, 2003, 154, 852-866.	1.0	11
97	On the possibility of lunar core phase detection using new seismometers for soft-landers in future lunar missions. Planetary and Space Science, 2013, 81, 18-31.	0.9	11
98	DNA analysis for section identification of individual <i>Pinus</i> pollen grains from Belukha glacier, Altai Mountains, Russia. Environmental Research Letters, 2013, 8, 014032.	2.2	11
99	High-velocity anomaly adjacent to the western edge of the Pacific low-velocity province. Geophysical Journal International, 2013, 192, 1-6.	1.0	11
100	Influence of a Subducted Oceanic Ridge on the Distribution of Shallow VLFEs in the Nankai Trough as Revealed by Moment Tensor Inversion and Cluster Analysis. Geophysical Research Letters, 2020, 47, e2020GL087244.	1.5	11
101	Snow algae blooms are beneficial for microinvertebrates assemblages (Tardigrada and Rotifera) on seasonal snow patches in Japan. Scientific Reports, 2021, 11, 5973.	1.6	11
102	Finite boundary perturbation theory for the elastic equation of motion. Geophysical Journal International, 2005, 160, 1044-1058.	1.0	10
103	Fine-scale topography of the D″ discontinuity and its correlation to volumetric velocity fluctuations. Physics of the Earth and Planetary Interiors, 2010, 183, 126-135.	0.7	10
104	Variations in Phototroph Communities on the Ablating Bare-Ice Surface of Glaciers on BrÃ,ggerhalvÃ,ya, Svalbard. Frontiers in Earth Science, 2019, 7, .	0.8	10
105	Unmasking photogranulation in decreasing glacial albedo and net autotrophic wastewater treatment. Environmental Microbiology, 2021, 23, 6391-6404.	1.8	10
106	Morphological and spectroscopic analysis of snow and glacier algae and their parasitic fungi on different glaciers of Svalbard. Scientific Reports, 2021, 11, 21785.	1.6	10
107	Metagenomics reveals global-scale contrasts in nitrogen cycling and cyanobacterial light-harvesting mechanisms in glacier cryoconite. Microbiome, 2022, 10, 50.	4.9	10
108	Meteorological and glaciological observations at Suntar-Khayata Glacier No. 31, east Siberia, from 2012-2014. Bulletin of Glaciological Research, 2016, 34, 33-40.	0.5	9

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109	Annual layer counting using pollen grains of the Grigoriev ice core from the Tien Shan Mountains, central Asia. Arctic, Antarctic, and Alpine Research, 2019, 51, 299-312.	0.4	9
110	Global Simulation of Snow Algal Blooming by Coupling a Land Surface and Newly Developed Snow Algae Models. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	1.3	8
111	Validations and descriptions of European syntaxa of vegetation dominated by lichens, bryophytes and algae. Lazaroa, 2015, 36, .	0.8	7
112	A Sharp Structural Boundary in Lowermost Mantle Beneath Alaska Detected by Core Phase Differential Travel Times for the Anomalous South Sandwich Islands to Alaska Path. Geophysical Research Letters, 2018, 45, 176-184.	1.5	7
113	Simulation of heterogeneity sections obtained by neutrino radiography. Earth, Planets and Space, 2010, 62, 215-221.	0.9	6
114	Microscopic analyses of insoluble particles in an ice core of Ürümqi Glacier No. 1: Quantification of mineral and organic particles. Journal of Earth Science (Wuhan, China), 2011, 22, 431-440.	1.1	6
115	Chemistry of Supraglacial Ponds in the Debris-Covered Area of Lirung Glacier in Central Nepal Himalayas. Aquatic Geochemistry, 2016, 22, 35-64.	1.5	6
116	Topography of the western Pacific LLSVP constrained by S-wave multipathing. Geophysical Journal International, 2019, 218, 190-199.	1.0	6
117	Inversion of Longerâ€Period OBS Waveforms for P Structures in the Oceanic Lithosphere and Asthenosphere. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018810.	1.4	6
118	A lowâ€velocity conduit throughout the mantle in the robust component of a tomography model. Geophysical Research Letters, 2009, 36, .	1.5	5
119	Sharpness of the hemispherical boundary in the inner core beneath the northern Pacific. Earth and Planetary Science Letters, 2019, 527, 115796.	1.8	5
120	Glacier Ecosystem and Biological ICE-Core Analysis. Series of the Centro De Estudios CientÃficos De Santiago, 2002, , 1-8.	0.2	5
121	Improvement of seismological earth models by using data weighting in waveform inversion. Geophysical Journal International, 2004, 158, 681-694.	1.0	4
122	Surface mass balance on Glacier No. 31 in the Suntar–Khayata Range, eastern Siberia, from 1951 to 2014. Journal of Mountain Science, 2017, 14, 501-512.	0.8	4
123	Morphological and physicochemical diversity of snow algae from Alaska. Scientific Reports, 2020, 10, 19167.	1.6	4
124	Physically Based Summer Temperature Reconstruction From Melt Layers in Ice Cores. Earth and Space Science, 2021, 8, e2020EA001590.	1.1	4
125	Glacial Ecosystems. Encyclopedia of Earth Sciences Series, 2011, , 330-331.	0.1	4
126	Glacio-environmental aspects recorded in two shallow ice cores drilled in 1980 at accumulation area of Khumbu Glacier of Mt. Everest in Nepal Himalayas. Arctic, Antarctic, and Alpine Research, 2020, 52, 605-616.	0.4	3

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127	Application of Distributed Object Technology to Seismic Waveform Distribution. Seismological Research Letters, 2002, 73, 166-172.	0.8	2
128	Can a sheetâ€like lowâ€velocity region form an elongated Large Igneous Province?. Geochemistry, Geophysics, Geosystems, 2013, 14, 3053-3066.	1.0	2
129	Contrasting Patterns of Microbial Communities in Glacier Cryoconite of Nepali Himalaya and Greenland, Arctic. Sustainability, 2020, 12, 6477.	1.6	2
130	Spatial Distribution of Unique Biological Communities and Their Control Over Surface Reflectivity of the Stanley Glacier, Uganda. Frontiers in Earth Science, 2022, 10, .	0.8	2
131	Influence of Seasonal Pumping on Groundwater Sources and Flow System, Nagaoka Plain, Japan. Ground Water, 2018, 56, 470-481.	0.7	1
132	Numerical data of probabilistic 3D lithological map of Japanese crust. Data in Brief, 2019, 26, 104497.	0.5	1
133	Cryoconite. Encyclopedia of Earth Sciences Series, 2011, , 168-171.	0.1	1
134	Spatial and seasonal changes in soluble ions and chlorophyll a concentration on the surface of snow pack in Mt. Tateyama, Japan. Journal of the Japanese Society of Snow and Ice, 2019, 81, 231-247.	0.0	1
135	Characteristics of Chemical Solutes and Mineral Dust in Ice of the Ablation Area of a Glacier in Tien Shan Mountains, Central Asia. Frontiers in Earth Science, 2022, 10, .	0.8	1
136	Spatial variations of Sr–Nd isotopic ratios, mineralogical and elemental compositions of cryoconite in an Alaskan glacier. Annals of Glaciology, 2018, 59, 147-158.	2.8	0
137	Bio-albedo effect on melting of glaciers and the ice sheet in the Arctic region and its modeling. Journal of the Japanese Society of Snow and Ice, 2021, 83, 51-66.	0.0	0
138	Studies on Atmosphere, Snow/Ice, and Glacial Microbes on Greenland Ice Sheet by SIGMA and relevant projects. Journal of the Japanese Society of Snow and Ice, 2021, 83, 169-191.	0.0	0
139	Review of the current polar ice sheet surface mass balance and its modelling: the 2020 summer edition. Journal of the Japanese Society of Snow and Ice, 2021, 83, 27-50.	0.0	0