

# Bonnie Light

## List of Publications by Year in descending order

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Version: 2024-02-01

39  
papers

2,388  
citations

471061

17  
h-index

315357

38  
g-index

48  
all docs

48  
docs citations

48  
times ranked

2787  
citing authors

#	ARTICLE	IF	CITATIONS
1	Shine a light: Under-ice light and its ecological implications in a changing Arctic Ocean. <i>Ambio</i> , 2022, 51, 307-317.	2.8	18
2	A neural network-based method for satellite-based mapping of sediment-laden sea ice in the Arctic. <i>Remote Sensing of Environment</i> , 2022, 270, 112861.	4.6	6
3	Overview of the MOSAIC expedition: Snow and sea ice. <i>Elementa</i> , 2022, 10, .	1.1	91
4	Arctic sea ice sensitivity to lateral melting representation in a coupled climate model. <i>Cryosphere</i> , 2022, 16, 419-434.	1.5	13
5	Spatiotemporal evolution of melt ponds on Arctic sea ice. <i>Elementa</i> , 2022, 10, .	1.1	22
6	Sensitivity of the Arctic Sea Ice Cover to the Summer Surface Scattering Layer. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	1
7	Quantifying false bottoms and under-ice meltwater layers beneath Arctic summer sea ice with fine-scale observations. <i>Elementa</i> , 2022, 10, .	1.1	10
8	Contrasting Seaâ€Ice Algae Blooms in a Changing Arctic Documented by Autonomous Drifting Buoys. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	1.0	3
9	Subzero, saline incubations of <i>Colwellia psychrerythraea</i> reveal strategies and biomarkers for sustained life in extreme icy environments. <i>Environmental Microbiology</i> , 2021, 23, 3840-3866.	1.8	10
10	Meltwater sources and sinks for multiyear Arctic sea ice inÂsummer. <i>Cryosphere</i> , 2021, 15, 4517-4525.	1.5	12
11	The influence of snow on sea ice as assessed from simulations of CESM2. <i>Cryosphere</i> , 2021, 15, 4981-4998.	1.5	8
12	A Synthesis of Observations and Models to Assess the Time Series of Sea Ice Mass Balance in the Beaufort Sea. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015833.	1.0	6
13	Changing ice and changing light: trends in solar heat input to the upper Arctic ocean from 1988 to 2014. <i>Annals of Glaciology</i> , 2020, 61, 401-407.	2.8	9
14	Physical and optical characteristics of heavily melted â€œrottenâ€ Arctic sea ice. <i>Cryosphere</i> , 2019, 13, 775-793.	1.5	14
15	Melt Pond Conditions on Declining Arctic Sea Ice Over 1979â€2016: Model Development, Validation, and Results. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 7983-8003.	1.0	23
16	Light Availability and Phytoplankton Growth Beneath Arctic Sea Ice: Integrating Observations and Modeling. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 3651-3667.	1.0	45
17	The spectral albedo of sea ice and salt crusts on the tropical ocean of Snowball Earth: II. Optical modeling. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 5217-5230.	1.0	12
18	The spectral albedo of sea ice and salt crusts on the tropical ocean of Snowball Earth: 1. Laboratory measurements. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 4966-4979.	1.0	7

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19	The magnitude of the snow-sourced reactive nitrogen flux to the boundary layer in the Uintah Basin, Utah, USA. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 13837-13851.	1.9	7
20	Seasonal evolution of melt ponds on Arctic sea ice. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 5968-5982.	1.0	83
21	Evolution of summer Arctic sea ice albedo in CCSM4 simulations: Episodic summer snowfall and frozen summers. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 284-303.	1.0	16
22	Optical properties of melting first-year Arctic sea ice. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 7657-7675.	1.0	62
23	Physical and morphological properties of sea ice in the Chukchi and Beaufort Seas during the 2010 and 2011 NASA ICESCAPE missions. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2015, 118, 7-17.	0.6	9
24	Albedo dome: a method for measuring spectral flux-reflectance in a laboratory for media with long optical paths. <i>Applied Optics</i> , 2015, 54, 5260.	2.1	5
25	Improved Sea Ice Shortwave Radiation Physics in CCSM4: The Impact of Melt Ponds and Aerosols on Arctic Sea Ice. <i>Journal of Climate</i> , 2012, 25, 1413-1430.	1.2	299
26	The spatial distribution of solar radiation under a melting Arctic sea ice cover. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	116
27	Arctic sea-ice melt in 2008 and the role of solar heating. <i>Annals of Glaciology</i> , 2011, 52, 355-359.	2.8	71
28	Migration of air bubbles in ice under a temperature gradient, with application to "Snowball Earth". <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	13
29	Theoretical and observational techniques for estimating light scattering in first-year Arctic sea ice. , 2010, , 331-391.		6
30	Transpolar observations of the morphological properties of Arctic sea ice. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	95
31	Hydrohalite in cold sea ice: Laboratory observations of single crystals, surface accumulations, and migration rates under a temperature gradient, with application to "Snowball Earth". <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	39
32	Transmission and absorption of solar radiation by Arctic sea ice during the melt season. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	163
33	Sunlight, water, and ice: Extreme Arctic sea ice melt during the summer of 2007. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	366
34	Increasing solar heating of the Arctic Ocean and adjacent seas, 1979-2005: Attribution and role in the ice-albedo feedback. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	377
35	Mapping sediment-laden sea ice in the Arctic using AVHRR remote-sensing data: Atmospheric correction and determination of reflectances as a function of ice type and sediment load. <i>Remote Sensing of Environment</i> , 2007, 107, 484-495.	4.6	13
36	Energy- and mass-balance observations of the land-ice-ocean-atmosphere system near Barrow, Alaska, USA, November 1999-July 2002. <i>Annals of Glaciology</i> , 2006, 44, 193-199.	2.8	4

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37	Spectral transmission and implications for the partitioning of shortwave radiation in arctic sea ice. <i>Annals of Glaciology</i> , 2006, 44, 1-6.	2.8	26
38	Thin and thinner: Sea ice mass balance measurements during SHEBA. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	230
39	Spatial distribution and radiative effects of soot in the snow and sea ice during the SHEBA experiment. <i>Journal of Geophysical Research</i> , 2002, 107, SHE 7-1.	3.3	75