Grant B Deane

List of Publications by Year
in descending order

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70 papers	3,558 citations	218677 26 h-index	138484 58 g-index
71 all docs	71 docs citations	71 times ranked	3179 citing authors

#	Article	IF	Citations
1	Scale dependence of bubble creation mechanisms in breaking waves. Nature, 2002, 418, 839-844.	27.8	598
2	Bringing the ocean into the laboratory to probe the chemical complexity of sea spray aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7550-7555.	7.1	439
3	Sea spray aerosol as a unique source of ice nucleating particles. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5797-5803.	7.1	323
4	Surface wave focusing and acoustic communications in the surf zone. Journal of the Acoustical Society of America, 2004, 116, 2067-2080.	1.1	204
5	Sound generation and air entrainment by breaking waves in the surf zone. Journal of the Acoustical Society of America, 1997, 102, 2671-2689.	1.1	152
6	The role of jet and film drops in controlling the mixing state of submicron sea spray aerosol particles. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6978-6983.	7.1	147
7	A Marine Aerosol Reference Tank system as a breaking wave analogue for the production of foam and sea-spray aerosols. Atmospheric Measurement Techniques, 2013, 6, 1085-1094.	3.1	129
8	Imaging in the ocean with ambient noise: the ORB experiments. Journal of the Acoustical Society of America, 1999, 106, 3211-3225.	1.1	109
9	Effect of soluble surfactant on bubble persistence and bubbleâ€produced aerosol particles. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1388-1400.	3.3	94
10	Acoustic hot-spots and breaking wave noise in the surf zone. Journal of the Acoustical Society of America, 1999, 105, 3151-3167.	1.1	82
11	An analysis of the threeâ€dimensional sound field in a penetrable wedge with a stratified fluid or elastic basement. Journal of the Acoustical Society of America, 1993, 93, 1319-1328.	1.1	77
12	Spatial and Temporal Variability of Internal Wave Forcing on a Coral Reef. Journal of Physical Oceanography, 2005, 35, 1945-1962.	1.7	77
13	Sea Spray Aerosol Structure and Composition Using Cryogenic Transmission Electron Microscopy. ACS Central Science, 2016, 2, 40-47.	11.3	74
14	Advancing Model Systems for Fundamental Laboratory Studies of Sea Spray Aerosol Using the Microbial Loop. Journal of Physical Chemistry A, 2015, 119, 8860-8870.	2.5	62
15	Automated processing of coral reef benthic images. Limnology and Oceanography: Methods, 2009, 7, 157-168.	2.0	61
16	Estimating the compressional and shear wave speeds of a shallow water seabed from the vertical coherence of ambient noise in the water column. Journal of the Acoustical Society of America, 1998, 103, 801-813.	1.1	58
17	Considerations on bubble fragmentation models. Journal of Fluid Mechanics, 2010, 661, 159-177.	3.4	57
18	Observed variation in the decay time of oceanic whitecap foam. Journal of Geophysical Research, 2012, 117, .	3.3	49

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19	Model calculations of the underwater noise of breaking waves and comparison with experiment. Journal of the Acoustical Society of America, 2010, 127, 3394-3410.	1.1	45
20	Two Regimes of Laboratory Whitecap Foam Decay: Bubble-Plume Controlled and Surfactant Stabilized. Journal of Physical Oceanography, 2013, 43, 1114-1126.	1.7	42
21	The effect of water temperature on air entrainment, bubble plumes, and surface foam in a laboratory breaking-wave analog. Journal of Geophysical Research: Oceans, 2014, 119, 7463-7482.	2.6	37
22	Underwater acoustic signatures of glacier calving. Geophysical Research Letters, 2015, 42, 804-812.	4.0	37
23	Observed physical and environmental causes of scatter in whitecap coverage values in a fetchâ€limited coastal zone. Journal of Geophysical Research, 2008, 113, .	3.3	36
24	Bioluminescence imaging of wave-induced turbulence. Journal of Geophysical Research, 2004, 109, .	3.3	34
25	A mechanism stimulating sound production from air bubbles released from a nozzle. Journal of the Acoustical Society of America, 2008, 123, EL126-EL132.	1.1	33
26	Importance of Supermicron Ice Nucleating Particles in Nascent Sea Spray. Geophysical Research Letters, 2021, 48, e2020GL089633.	4.0	29
27	Deterministic forward scatter from surface gravity waves. Journal of the Acoustical Society of America, 2012, 132, 3673-3686.	1.1	26
28	Long time-base observations of surf noise. Journal of the Acoustical Society of America, 2000, 107, 758-770.	1.1	25
29	The impact of glacier meltwater on the underwater noise field in a glacial bay. Journal of Geophysical Research: Oceans, 2016, 121, 8455-8470.	2.6	24
30	The Saturation of Fluid Turbulence in Breaking Laboratory Waves and Implications for Whitecaps. Journal of Physical Oceanography, 2016, 46, 975-992.	1.7	24
31	The Suspension of Large Bubbles Near the Sea Surface by Turbulence and Their Role in Absorbing Forward-Scattered Sound. IEEE Journal of Oceanic Engineering, 2013, 38, 632-641.	3.8	23
32	Laboratory airâ€entraining breaking waves: Imaging visible foam signatures to estimate energy dissipation. Geophysical Research Letters, 2016, 43, 11,320.	4.0	22
33	A quantitative model for flow-induced bioluminescence in dinoflagellates. Journal of Theoretical Biology, 2005, 237, 147-169.	1.7	21
34	Pharmacological investigation of the bioluminescence signaling pathway of the dinoflagellate Lingulodinium polyedrum: evidence for the role of stretchâ€activated ion channels. Journal of Phycology, 2013, 49, 733-745.	2.3	20
35	The acoustic excitation of air bubbles fragmenting in sheared flow. Journal of the Acoustical Society of America, 2008, 124, 3450-3463.	1.1	19
36	Contributions to the acoustic excitation of bubbles released from a nozzle. Journal of the Acoustical Society of America, 2010, 128, 2625-2634.	1.1	19

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37	Directionality of the ambient noise field in an Arctic, glacial bay. Journal of the Acoustical Society of America, 2014, 136, EL350-EL356.	1.1	19
38	Bubble production by air filament and cavity breakup in plunging breaking wave crests. Journal of Fluid Mechanics, 2021, 929, .	3.4	18
39	Quantifying iceberg calving fluxes with underwater noise. Cryosphere, 2020, 14, 1025-1042.	3.9	16
40	Reconstructing surface wave profiles from reflected acoustic pulses. Journal of the Acoustical Society of America, 2013, 133, 2597-2611.	1.1	15
41	Biological Influence on Î´¹³C and Organic Composition of Nascent Sea Spray Aerosol. ACS Earth and Space Chemistry, 2020, 4, 1686-1699.	2.7	15
42	On the imprint of surfactantâ€driven stabilization of laboratory breaking wave foam with comparison to oceanic whitecaps. Journal of Geophysical Research: Oceans, 2017, 122, 6110-6128.	2.6	14
43	The Intensity, Directionality, and Statistics of Underwater Noise From Melting Icebergs. Geophysical Research Letters, 2018, 45, 4105-4113.	4.0	13
44	Determining the bubble cap film thickness of bursting bubbles from their acoustic emissions. Journal of the Acoustical Society of America, 2013, 133, EL69-EL75.	1.1	11
45	A robust and accurate technique for Lagrangian tracking of bubbles and detecting fragmentation and coalescence. International Journal of Multiphase Flow, 2021, 135, 103523.	3.4	11
46	Internal friction and boundary conditions in lossy fluid seabeds. Journal of the Acoustical Society of America, 1997, 101, 233-240.	1.1	10
47	A Semi-Blind Method for Localization of Underwater Acoustic Sources. IEEE Transactions on Signal Processing, 2022, 70, 3090-3106.	5.3	10
48	Bubble stimulation efficiency of dinoflagellate bioluminescence. Luminescence, 2016, 31, 270-280.	2.9	9
49	On the Reusability of Postexperimental Field Data for Underwater Acoustic Communications R&D. IEEE Journal of Oceanic Engineering, 2019, 44, 912-931.	3.8	9
50	A numerical framework for simulating the atmospheric variability of supermicron marine biogenic ice nucleating particles. Atmospheric Chemistry and Physics, 2022, 22, 847-859.	4.9	9
51	Measurements of Large Bubbles in Open-Ocean Whitecaps. Geophysical Monograph Series, 0, , 279-284.	0.1	8
52	Reconstructing surface wave profiles from reflected acoustic pulses using multiple receivers. Journal of the Acoustical Society of America, 2014, 136, 604-613.	1.1	8
53	Two-element acoustic array gives insight into ice-ocean interactions in Hornsund Fjord, Spitsbergen. Polish Polar Research, 2015, 36, 355-367.	0.9	6
54	On the Interpretation of Coherent Marine Radar Backscatter From Surf Zone Waves. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	6.3	6

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55	A threeâ€dimensional analysis of sound propagation in facetted geometries. Journal of the Acoustical Society of America, 1994, 96, 2897-2907.	1.1	5
56	Variability in Shallow Water Communication Performance Near a Busy Shipping Lane. , 2021, , .		5
57	Intensity statistics of very high frequency sound scattered from wind-driven waves. Journal of the Acoustical Society of America, 2016, 139, 2784-2796.	1.1	4
58	Making the most of field data to support underwater acoustic communications R&D. , 2018, , .		4
59	Analysis of sound pressure levels generated by nozzle-emitted large bubbles. JASA Express Letters, 2022, 2, 054002.	1.1	4
60	Surface tension effects in breaking wave noise. Journal of the Acoustical Society of America, 2012, 132, 700-708.	1.1	3
61	Impact of Persistent Bubbles on Underwater Acoustic Communication. , 2018, , .		3
62	Vertical directionality and spatial coherence of the sound field in glacial bays in Hornsund Fjord. Journal of the Acoustical Society of America, 2020, 148, 3849-3862.	1.1	3
63	Biologically Induced Changes in the Partitioning of Submicron Particulates Between Bulk Seawater and the Sea Surface Microlayer. Geophysical Research Letters, 2022, 49, e2021GL094587.	4.0	3
64	Determination of ocean surface wave shape from forward scattered sound. Journal of the Acoustical Society of America, 2016, 140, 787-797.	1.1	2
65	Very high frequency noise sources in the littoral zone. , 2016, , .		2
66	A numerical simulation framework for bubbly flow and sound generation in laboratory-scale breaking waves. JASA Express Letters, 2021, 1, 100801.	1.1	2
67	Model-data comparison of sound propagation in a glacierized fjord with a simulated brash ice surface. Journal of the Acoustical Society of America, 2022, 151, 2367-2377.	1.1	2
68	The compressional and shear wave speeds of a seabed in shallow water determined from ambient noise measurements. , 1996, , .		1
69	Evaluating the properties of sea spray aerosols produced in the laboratory: Comparisons with controlled breaking waves. , 2013, , .		0
70	10.1121/10.0010377.1. , 2022, , .		0