Larry Mayer

List of Publications by Year
in descending order

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144 papers	9,657 citations	57719 44 h-index	38368 95 g-index
167 all docs	167 docs citations	167 times ranked	8967 citing authors

#	Article	IF	Citations
1	Bubble vent localization for marine hydrocarbon seep surveys. Interpretation, 2022, 10, SB107-SB128.	0.5	1
2	Polar Region Bathymetry: Critical Knowledge for the Prediction of Global Sea Level Rise. Frontiers in Marine Science, 2022, 8, .	1.2	8
3	The International Bathymetric Chart of the Southern Ocean Version 2. Scientific Data, 2022, 9, .	2.4	28
4	Fineâ€scale mapping of deepâ€sea habitatâ€forming species densities reveals taxonomic specific environmental drivers. Global Ecology and Biogeography, 2021, 30, 1286-1298.	2.7	6
5	Inspiring U.S. Contributions to the UN Ocean Decade: The U.S. National Committee and Ocean-Shots. Marine Technology Society Journal, 2021, 55, 58-61.	0.3	0
6	A deep scattering layer under the North Pole pack ice. Progress in Oceanography, 2021, 194, 102560.	1.5	15
7	The Holocene dynamics of Ryder Glacier and ice tongue in north Greenland. Cryosphere, 2021, 15, 4073-4097.	1.5	11
8	Geomorphology and microhabitats of large, isolated, immobile bedforms in the Great South Channel, Northwest Atlantic Ocean. , 2020, , 503-518.		0
9	The International Bathymetric Chart of the Arctic Ocean Version 4.0. Scientific Data, 2020, 7, 176.	2.4	129
10	Scientific Challenges and Present Capabilities in Underwater Robotic Vehicle Design and Navigation for Oceanographic Exploration Under-Ice. Remote Sensing, 2020, 12, 2588.	1.8	30
11	Ryder Glacier in northwest Greenland is shielded from warm Atlantic water by a bathymetric sill. Communications Earth & Environment, 2020, 1, .	2.6	28
12	Tracking the spatiotemporal variability of the oxicâ€“anoxic interface in the Baltic Sea with broadband acoustics. ICES Journal of Marine Science, 2020, 77, 2814-2824.	1.2	5
13	Basalts From the Chukchi Borderland: ⁴⁰Ar/³⁹Ar Ages and Geochemistry of Submarine Intraplate Lavas Dredged From the Western Arctic Ocean. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB017604.	1.4	10
14	The effect of two 12 kHz multibeam mapping surveys on the foraging behavior of Cuvier's beaked whales off of southern California. Journal of the Acoustical Society of America, 2020, 147, 3849-3858.	0.5	10
15	Mass wasting on Alpha Ridge in the Arctic Ocean: new insights from multibeam bathymetry and sub-bottom profiler data. Geological Society Special Publication, 2020, 500, 323-340.	0.8	4
16	Glacial sedimentation, fluxes and erosion rates associated with ice retreat in Petermann Fjord and Nares Strait, north-west Greenland. Cryosphere, 2020, 14, 261-286.	1.5	21
17	Applications of the Gulf of Maine Operational Forecast System to Enhance Spatio-Temporal Oceanographic Awareness for Ocean Mapping. Frontiers in Marine Science, 2020, 6, .	1.2	3
18	Standardized Geomorphic Classification of Seafloor Within the United States Atlantic Canyons and Continental Margin. Frontiers in Marine Science, 2020, 7, .	1.2	15

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19	A global geographic grid system for visualizing bathymetry. Geoscientific Instrumentation, Methods and Data Systems, 2020, 9, 375-384.	0.6	1
20	Holocene break-up and reestablishment of the Petermann Ice Tongue, Northwest Greenland. Quaternary Science Reviews, 2019, 218, 322-342.	1.4	23
21	Seafloor Mapping â€“ The Challenge of a Truly Global Ocean Bathymetry. Frontiers in Marine Science, 2019, 6, .	1.2	140
22	A wideband acoustic method for direct assessment of bubble-mediated methane flux. Continental Shelf Research, 2019, 173, 104-115.	0.9	21
23	A framework to quantify uncertainties of seafloor backscatter from swath mapping echosounders. Marine Geophysical Researches, 2018, 39, 151-168.	0.5	13
24	Acoustic mapping of mixed layer depth. Ocean Science, 2018, 14, 503-514.	1.3	15
25	Bathymetry and oceanic flow structure at two deep passages crossing the Lomonosov Ridge. Ocean Science, 2018, 14, 1-13.	1.3	14
26	An Automatic Procedure for the Quantitative Characterization of Submarine Bedforms. Geosciences (Switzerland), 2018, 8, 28.	1.0	27
27	The Holocene retreat dynamics and stability of Petermann Glacier in northwest Greenland. Nature Communications, 2018, 9, 2104.	5.8	39
28	A Bathymetry- and Reflectivity-Based Approach for Seafloor Segmentation. Geosciences (Switzerland), 2018, 8, 14.	1.0	32
29	The Nippon Foundationâ€"GEBCO Seabed 2030 Project: The Quest to See the Worldâ€™s Oceans Completely Mapped by 2030. Geosciences (Switzerland), 2018, 8, 63.	1.0	252
30	Seal Occurrence and Habitat Use during Summer in Petermann Fjord, Northwestern Greenland. Arctic, 2018, 71, .	0.2	3
31	BedMachine v3: Complete Bed Topography and Ocean Bathymetry Mapping of Greenland From Multibeam Echo Sounding Combined With Mass Conservation. Geophysical Research Letters, 2017, 44, 11051-11061.	1.5	536
32	Acoustic Mapping of Thermohaline Staircases in the Arctic Ocean. Scientific Reports, 2017, 7, 15192.	1.6	27
33	The De Long Trough: a newly discovered glacial trough on the East Siberian continental margin. Climate of the Past, 2017, 13, 1269-1284.	1.3	22
34	Post-glacial flooding of the Bering Land Bridge dated to 11â€¯calâ€¯kaâ€¯BP based on new geophysical and sediment records. Climate of the Past, 2017, 13, 991-1005.	1.3	85
35	Cascades and plunge pools on the continental slope of the Gulf of Alaska. Geological Society Memoir, 2016, 46, 389-390.	0.9	1
36	Evidence for an ice shelf covering the central Arctic Ocean during the penultimate glaciation. Nature Communications, 2016, 7, 10365.	5.8	133

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37	Mapping submarine glacial landforms using acoustic methods. Geological Society Memoir, 2016, 46, 17-40.	0.9	24
38	Chatham Fan and adjacent upper Baranof Fan channels and levee, US Gulf of Alaska margin. Geological Society Memoir, 2016, 46, 387-388.	0.9	2
39	An ultrahigh-latitude submarine channel: Northern Chukchi Rise. Geological Society Memoir, 2016, 46, 391-392.	0.9	1
40	Glacial landforms in a hard bedrock terrain, Melville Bay, northwestern Greenland. Geological Society Memoir, 2016, 46, 201-202.	0.9	2
41	First bedrock samples dredged from submarine outcrops in the Chukchi Borderland, Arctic Ocean. , 2015, 11, 76-92.		48
42	High resolution mapping of offshore and onshore glaciogenic features in metamorphic bedrock terrain, Melville Bay, northwestern Greenland. Geomorphology, 2015, 250, 29-40.	1.1	19
43	Inventory and comparative evaluation of seabed mapping, classification and modeling activities in the Northwest Atlantic, USA to support regional ocean planning. Journal of Sea Research, 2015, 100, 133-140.	0.6	4
44	Acoustic estimates of methane gas flux from the seabed in a 6000 km² region in the Northern Gulf of Mexico. Geochemistry, Geophysics, Geosystems, 2014, 15, 1911-1925.	1.0	78
45	Design of Nereid-UI: A remotely operated underwater vehicle for oceanographic access under ice. , 2014, , .		10
46	Arctic Ocean glacial history. Quaternary Science Reviews, 2014, 92, 40-67.	1.4	184
47	Evaluation of arctic multibeam sonar data quality using nadir crossover error analysis and compilation of a full-resolution data product. Computers and Geosciences, 2014, 66, 228-236.	2.0	5
48	Application of landscape mosaics for the assessment of subtidal macroalgae communities using the CFR index. Deep-Sea Research Part II: Topical Studies in Oceanography, 2014, 106, 207-215.	0.6	8
49	A detailed seabed signature from Hurricane Sandy revealed in bedforms and scour. Geochemistry, Geophysics, Geosystems, 2013, 14, 4334-4340.	1.0	27
50	Acoustic and optical observations of methane gas seeps in the Gulf of Mexico. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
51	Scientific basis for safely shutting in the Macondo Well after the April 20, 2010Deepwater Horizonblowout. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20268-20273.	3.3	35
52	Estimating oil concentration and flow rate with calibrated vessel-mounted acoustic echo sounders. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20240-20245.	3.3	36
53	Nereid UI: A Light-Tethered Remotely Operated Vehicle for Under-Ice Telepresence. , 2012, , .		2
54	Acoustic Sensing of Gas Seeps in the Deep Ocean with Split-beam Echosounders. Proceedings of Meetings on Acoustics, 2012, , .	0.3	6

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55	Lightly tethered unmanned underwater vehicle for under-ice exploration. , 2012, , .		5
56	Sediment mixing in the tropical Pacific and radiolarian stratigraphy. Geochemistry, Geophysics, Geosystems, 2012, 13, .	1.0	7
57	The International Bathymetric Chart of the Arctic Ocean (IBCAO) Version 3.0. Geophysical Research Letters, 2012, 39, .	1.5	888
58	Geological interpretation of a low-backscatter anomaly found on the New Jersey continental margin. Marine Geology, 2012, 326-328, 46-54.	0.9	9
59	Construction of seafloor thematic maps from multibeam acoustic backscatter angular response data. Computers and Geosciences, 2012, 41, 181-187.	2.0	41
60	Sediment identification using free fall penetrometer acceleration-time histories. Marine Geophysical Researches, 2011, 32, 397-411.	0.5	26
61	An Arctic Ocean ice shelf during MIS 6 constrained by new geophysical and geological data. Quaternary Science Reviews, 2010, 29, 3505-3517.	1.4	104
62	Angular range analysis of acoustic themes from Stanton Banks Ireland: A link between visual interpretation and multibeam echosounder angular signatures. Applied Acoustics, 2009, 70, 1298-1304.	1.7	131
63	Measurements of acoustic backscatter and density of captive Atlantic cod with synchronized 300-kHz multibeam and 120-kHz split-beam echosounders. ICES Journal of Marine Science, 2009, 66, 1303-1309.	1.2	9
64	An improved bathymetric portrayal of the Arctic Ocean: Implications for ocean modeling and geological, geophysical and oceanographic analyses. Geophysical Research Letters, 2008, 35, .	1.5	410
65	Evolution of a benthic imaging system from a towed camera to an automated habitat characterization system. , 2008, , .		11
66	Dissolution of biogenic ooze over basement edifices in the equatorial Pacific with implications for hydrothermal ventilation of the oceanic crust. Geology, 2007, 35, 679.	2.0	26
67	Investigation of seabed fishing impacts on benthic structure using multi-beam sonar, sidescan sonar, and video. ICES Journal of Marine Science, 2007, 64, 1053-1065.	1.2	18
68	Geophysical insights into the Transition fault debate: Propagating strike slip in response to stalling Yakutat block subduction in the Gulf of Alaska. Geology, 2007, 35, 763.	2.0	78
69	Acoustic Positioning and Tracking in Portsmouth Harbor, New Hampshire. , 2007, , .		3
70	Drowned shelf-edge deltas, barrier islands and related features along the outer continental shelf north of the head of De Soto Canyon, NE Gulf of Mexico. Geomorphology, 2007, 89, 370-390.	1.1	50
71	High-Resolution Mapping of Mines and Ripples at the Martha's Vineyard Coastal Observatory. IEEE Journal of Oceanic Engineering, 2007, 32, 133-149.	2.1	33
72	Mine Burial Experiments at the Martha's Vineyard Coastal Observatory. IEEE Journal of Oceanic Engineering, 2007, 32, 150-166.	2.1	21

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73	The early Miocene onset of a ventilated circulation regime in the Arctic Ocean. Nature, 2007, 447, 986-990.	13.7	208
74	Remote estimation of surficial seafloor properties through the application Angular Range Analysis to multibeam sonar data. Marine Geophysical Researches, 2007, 28, 119-126.	0.5	162
75	Deep-sea Geo-referenced Video Mosaics. , 2006, , .		12
76	Stratigraphic Model Predictions of Geoacoustic Properties. IEEE Journal of Oceanic Engineering, 2006, 31, 266-283.	2.1	6
77	Mapping supports potential submission to U.N. Law of the Sea. Eos, 2006, 87, 157.	0.1	30
78	Frontiers in Seafloor Mapping and Visualization. Marine Geophysical Researches, 2006, 27, 7-17.	0.5	98
79	Multibeam bathymetric and sediment profiler evidence for ice grounding on the Chukchi Borderland, Arctic Ocean. Quaternary Research, 2005, 63, 150-160.	1.0	48
80	An integrated approach to flood hazard assessment on alluvial fans using numerical modeling, field mapping, and remote sensing. Bulletin of the Geological Society of America, 2005, 117, 1167.	1.6	57
81	Shelf-edge deltas and drowned barrierâ€"island complexes on the northwest Florida outer continental shelf. Geomorphology, 2005, 64, 133-166.	1.1	47
82	Detailed investigation of sorted bedforms, or â€œrippled scour depressions,â€•within the Martha's Vineyard Coastal Observatory, Massachusetts. Continental Shelf Research, 2005, 25, 461-484.	0.9	92
83	Protocols for calibrating multibeam sonar. Journal of the Acoustical Society of America, 2005, 117, 2013-2027.	0.5	105
84	Seabed characterization on the New Jersey middle and outer shelf: correlatability and spatial variability of seafloor sediment properties. Marine Geology, 2004, 209, 147-172.	0.9	154
85	Paleoseismology of the Paluâ€"Lake Hazar segment of the East Anatolian Fault Zone, Turkey. Tectonophysics, 2003, 374, 163-197.	0.9	92
86	Geomorphology, acoustic backscatter, and processes in Santa Monica Bay from multibeam mapping. Marine Environmental Research, 2003, 56, 15-46.	1.1	44
87	Acoustic transducer calibration system. , 2003, , .		4
88	Surface, Subsurface, and Deep Imaging: Acquisition, Processing, and Interpretation of Seismic and Acoustic Data. Energy Exploration and Exploitation, 2003, 21, 303-307.	1.1	0
89	The high-frequency backscattering angular response of gassy sediments: Model/data comparison from the Eel River Margin, California. Journal of the Acoustical Society of America, 2002, 111, 2621-2631.	0.5	46
90	3D visualization for pelagic fisheries research and assessment. ICES Journal of Marine Science, 2002, 59, 216-225.	1.2	70

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91	Commercial fishing vessels, automatic acoustic logging systems and 3D data visualization. ICES Journal of Marine Science, 2002, 59, 179-189.	1.2	27
92	Morphology, volcanism, and mass wasting in Crater Lake, Oregon. Bulletin of the Geological Society of America, 2002, 114, 675-692.	1.6	69
93	Organic carbon deposition on the North Carolina continental slope off Cape Hatteras (USA). Deep-Sea Research Part II: Topical Studies in Oceanography, 2002, 49, 4687-4709.	0.6	36
94	In-Situ Determination of the Variability of Seafloor Acoustic Properties: An Example from the Onr Geoclutter Area. , 2002, , 115-122.		14
95	Derivation of Î´18O from sediment core log data: Implications for millennial-scale climate change in the Labrador Sea. Paleoceanography, 2001, 16, 503-514.	3.0	11
96	Enhanced Acoustic Backscatter Due to High Abundance of Sand Dollars,Dendraster excentricus. Marine Georesources and Geotechnology, 2001, 19, 135-145.	1.2	5
97	Enhanced Acoustic Backscatter Due to High Abundance of Sand Dollars, Dendraster excentricus. Marine Georesources and Geotechnology, 2001, 19, 135-145.	1.2	2
98	Multibeam sonar backscatter lineaments and anthropogenic organic components in lacustrine silty clay, evidence of shipping in western Lake Ontario. International Journal of Coal Geology, 2000, 43, 307-324.	1.9	11
99	Microtopographic evolution of mineral surfaces as a tool to identify and date young fault scarps in bedrock. Journal of Geodynamics, 2000, 29, 393-406.	0.7	0
100	Acoustic backscatter of the 1995 flood deposit on the Eel shelf. Marine Geology, 1999, 154, 197-210.	0.9	55
101	Detailed investigation of continental shelf morphology using a high-resolution swath sonar survey: the Eel margin, northern California. Marine Geology, 1999, 154, 255-269.	0.9	76
102	High-resolution swath sonar investigation of sand ridge, dune and ribbon morphology in the offshore environment of the New Jersey margin. Marine Geology, 1999, 161, 307-337.	0.9	102
103	Data structures for fast searching of SEG-Y seismic data. Computers and Geosciences, 1999, 25, 179-190.	2.0	7
104	Active tectonics of the Loreto area, Baja California Sur, Mexico. Geomorphology, 1999, 27, 243-255.	1.1	22
105	Modelling of Plioceneâ€"Pleistocene abyssal mudwaves using synthetic seismograms. Marine Geology, 1998, 149, 3-16.	0.9	3
106	Core-log-seismic integration as a framework for determining the basin-wide significance of regional reflectors in the eastern equatorial Pacific. Geophysical Research Letters, 1997, 24, 321-324.	1.5	13
107	Three-dimensional visualization of orbital forcing and climatic repsonse: Interactively exploring the pacemaker of the ice ages. Geologische Rundschau: Zeitschrift Fur Allgemeine Geologie, 1996, 85, 505-512.	1.3	5
108	Shallow-water imaging multibeam sonars: A new tool for investigating seafloor processes in the coastal zone and on the continental shelf. Marine Geophysical Researches, 1996, 18, 607-629.	0.5	195

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109	Swath Mapping on the Continental Shelf and Slope: The Eel River Basin, Northern California. Oceanography, 1996, 9, 178-182.	0.5	18
110	Three-dimensional visualization of orbital forcing and climatic reponse: interactively exploring the pacemaker of the ice ages. Geologische Rundschau: Zeitschrift Fur Allgemeine Geologie, 1996, 85, 505.	1.3	1
111	Yin and Yang of mucosal immunology. Transplantation Proceedings, 1996, 28, 2435-7.	0.3	0
112	Stratigraphy and paleolimnologic record of lower Holocene sediments in northern Lake Huron and Georgian Bay. Canadian Journal of Earth Sciences, 1994, 31, 1586-1605.	0.6	55
113	Effect of storm clustering on water balance estimates and its implications for climate impact assessment. Climatic Change, 1994, 27, 321-342.	1.7	1
114	Lakes of the Huron basin: their record of runoff from the laurentide ice sheet. Quaternary Science Reviews, 1994, 13, 891-922.	1.4	93
115	Seismic stratigraphy of Lake Huron â€“ Georgian Bay and postglacial lake level history. Canadian Journal of Earth Sciences, 1994, 31, 1606-1617.	0.6	41
116	Great Lakes paleohydrology: Complex interplay of glacial meltwater, lake levels, and sill depths. Geology, 1994, 22, 1059.	2.0	57
117	WBANDZ: A C program to calibrate the hydrologic model and calculate monthly water balance and Palmer's Z-index. Computers and Geosciences, 1993, 19, 1267-1283.	2.0	1
118	Calculation of acoustic parameters by a filterâ€correlation method. Journal of the Acoustical Society of America, 1993, 93, 1145-1154.	0.5	19
119	Acoustic properties of fineâ€grained sediments from Emerald Basin: Toward an inversion for physical properties using the Biotâ€“Stoll model. Journal of the Acoustical Society of America, 1993, 93, 3193-3200.	0.5	14
120	Marine sediment classification using the chirp sonar. Journal of the Acoustical Society of America, 1992, 91, 107-115.	0.5	104
121	Fractal characteristics of desert storm sequences and implications for geomorphic studies. Geomorphology, 1992, 5, 167-183.	1.1	8
122	Downhole Logging as a Paeoceanographic Tool on Ocean Drilling Program Leg 138: Interface Between High-Resolution Stratigraphy and Regional Syntheses. Paleoceanography, 1992, 7, 691-700.	3.0	9
123	Extraction of high-resolution carbonate data for palaeoclimate reconstruction. Nature, 1991, 352, 148-150.	13.7	63
124	Large-scale current-induced erosion and deposition in the path of the 1929 Grand Banks turbidity current. Sedimentology, 1990, 37, 613-629.	1.6	110
125	Giant flute-like scour and other erosional features formed by the 1929 Grand Banks turbidity current. Sedimentology, 1990, 37, 631-645.	1.6	58
126	Elevated Circulating Levels of Tumor Necrosis Factor in Severe Chronic Heart Failure. New England Journal of Medicine, 1990, 323, 236-241.	13.9	2,370

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127	Contributions from the oceanic record to the study of global change on three time scalesâ€"Report of working group 1, interlaken workshop for past global changes. Palaeogeography, Palaeoclimatology, Palaeoecology, 1990, 82, 5-37.	1.0	2
128	Chirp subbottom profiler for quantitative sediment analysis. Geophysics, 1989, 54, 445-450.	1.4	104
129	The morphology and tectonics of the Mark area from Sea Beam and Sea MARC I observations (Mid-Atlantic Ridge 23Â° N). Marine Geophysical Researches, 1988, 10, 59-90.	0.5	142
130	Dense biological communities at 3850 m on the Laurentian Fan and their relationship to the deposits of the 1929 Grand Banks earthquake. Deep-sea Research Part A, Oceanographic Research Papers, 1988, 35, 1235-1246.	1.6	78
131	Novel Acoustics Applications/Seafloor Engineering. , 1987, , .		1
132	Cenozoic paleoceanography 1986: An introduction. Paleoceanography, 1987, 2, 613-623.	3.0	5
133	Teaching the Use of Geological Equipment with a Microcomputer. Journal of Geoscience Education, 1987, 35, 266-270.	0.2	2
134	Time-thickness bar diagrams: Simultaneous display of lithostratigraphic thickness and chronostratigraphic range. Geology, 1984, 12, 7.	2.0	2
135	Comments and Replies on â€˜Use of packrat middens to determine rates of cliff retreat in the eastern Grand Canyon, Arizonaâ€™. Geology, 1983, 11, 314.	2.0	0
136	Comment and Reply on â€˜Use of packrat middens to determine rates of cliff retreat in the eastern Grand Canyon, Arizonaâ€™. Geology, 1983, 11, 494.	2.0	0
137	Use of packrat middens to determine rates of cliff retreat in the eastern Grand Canyon, Arizona. Geology, 1982, 10, 597.	2.0	21
138	Erosional troughs in deep-sea carbonates and their relationship to basement structure. Marine Geology, 1981, 39, 59-80.	0.9	22
139	Excepftonally Strong Near-Bottom Flows on the Continental Rise of Nova Scotia. Science, 1981, 213, 887-888.	6.0	100
140	Deep-sea carbonates: Physical property relationships and the origin of high-frequency acoustic reflectors. Marine Geology, 1980, 38, 165-183.	0.9	33
141	Furrowed mud waves on the western Bermuda Rise. Bulletin of the Geological Society of America, 1980, 91, 731.	1.6	36
142	Hydraulic piston coring of late Neogene and Quaternary sections in the Caribbean and equatorial Pacific: Preliminary results of Deep Sea Drilling Project Leg 68. Bulletin of the Geological Society of America, 1980, 91, 433.	1.6	13
143	The origin of fine scale acoustic stratigraphy in deepâ€sea carbonates. Journal of Geophysical Research, 1979, 84, 6177-6184.	3.3	50
144	Deep-sea image processing. , 0, , .		8