Robert Aller

List of Publications by Year
in descending order

134 papers	13,919 citations	16411 64 h-index	20307 116 g-index
135 all docs	135 docs citations	135 times ranked	8565 citing authors

#	Article	IF	Citations
1	Buffering muds with bivalve shell significantly increases the settlement, growth, survival, and burrowing of the early life stages of the Northern quahog, Mercenaria mercenaria, and other calcifying invertebrates. Estuarine, Coastal and Shelf Science, 2022, 264, 107686.	0.9	5
2	The dynamics of cable bacteria colonization in surface sediments: a 2D view. Scientific Reports, 2021, 11, 7167.	1.6	9
3	Benthic iron flux influenced by climateâ€sensitive interplay between organic carbon availability and sedimentation rate in Arctic fjords. Limnology and Oceanography, 2021, 66, 3374-3392.	1.6	11
4	Sediment reworking by the burrowing polychaete Hediste diversicolor modulated by environmental and biological factors across the temperate North Atlantic. A tribute to Gaston Desrosiers. Journal of Experimental Marine Biology and Ecology, 2021, 541, 151588.	0.7	10
5	Tight benthic-pelagic coupling drives seasonal and interannual changes in ironâ€‘sulfur cycling in Arctic fjord sediments (Kongsfjorden, Svalbard). Journal of Marine Systems, 2021, , 103645.	0.9	5
6	Nitrogen cycling in muddy sediments of Great Peconic Bay, USA: Seasonal N reaction balances and multi-year flux patterns. Journal of Marine Research, 2021, 79, 149-179.	0.3	0
7	Density and size-dependent bioturbation effects of the infaunal polychaete Nephtys incisa on sediment biogeochemistry and solute exchange. Journal of Marine Research, 2021, 79, 181-220.	0.3	4
8	Glacial controls on redox-sensitive trace element cycling in Arctic fjord sediments (Spitsbergen,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46	1.6	19
9	Editor's Commentary: On the Oxidation of Organic Matter In Marine Sediments by Bacteria By Selman A. Waksman and Margaret Hotchkiss. Journal of Marine Research, 2020, 78, 149-149.	0.3	0
10	Editor's Commentary: The influence of deposit-feeding organisms on sediment stability and community trophic structure by Donald C. Rhoads and David K. Young. Journal of Marine Research, 2020, 78, 167-167.	0.3	0
11	The Critical Role of Bioturbation for Particle Dynamics, Priming Potential, and Organic C Remineralization in Marine Sediments: Local and Basin Scales. Frontiers in Earth Science, 2019, 7, .	0.8	61
12	Worm tubes as conduits for the electrogenic microbial grid in marine sediments. Science Advances, 2019, 5, eaaw3651.	4.7	38
13	The sources and distribution of carbon (DOC, POC, DIC) in a mangrove dominated estuary (French) Tj ETQq1 1 0.784314 rgBT /Overlock	1.7	43
14	An evaluation of sedimentary molybdenum and iron as proxies for pore fluid paleoredox conditions. Numerische Mathematik, 2018, 318, 527-556.	0.7	63
15	An irreversible planar optical sensor for multi-dimensional measurements of sedimentary H2S. Marine Chemistry, 2017, 195, 143-152.	0.9	17
16	N2 production and fixation in deep-tier burrows of Squilla empusa in muddy sediments of Great Peconic Bay. Journal of Sea Research, 2017, 129, 36-41.	0.6	6
17	The Missing Silica Sink: Revisiting the Marine Sedimentary Si Cycle Using Cosmogenic ³²Si. Global Biogeochemical Cycles, 2017, 31, 1559-1578.	1.9	70
18	Cosmogenic ³²Si as a tracer of biogenic silica burial and diagenesis: Major deltaic sinks in the silica cycle. Geophysical Research Letters, 2016, 43, 7124-7132.	1.5	50

#	Article	IF	Citations
19	Priming effect of benthic gastropod mucus on sedimentary organic matter remineralization. Limnology and Oceanography, 2016, 61, 1640-1650.	1.6	18
20	Medically-Derived ¹³¹I as a Tool for Investigating the Fate of Wastewater Nitrogen in Aquatic Environments. Environmental Science & Technology, 2015, 49, 10312-10319.	4.6	9
21	Coastal ocean acidification: The other eutrophication problem. Estuarine, Coastal and Shelf Science, 2014, 148, 1-13.	0.9	417
22	Planar fluorescence sensors for two-dimensional measurements of H2S distributions and dynamics in sedimentary deposits. Marine Chemistry, 2013, 157, 49-58.	0.9	23
23	Seasonal, 2-D sedimentary extracellular enzyme activities and controlling processes in Great Peconic Bay, Long Island. Journal of Marine Research, 2013, 71, 399-423.	0.3	8
24	Two-dimensional dissolved ferrous iron distributions in marine sediments as revealed by a novel planar optical sensor. Marine Chemistry, 2012, 136-137, 14-23.	0.9	39
25	The Fate of Terrestrial Organic Carbon in the Marine Environment. Annual Review of Marine Science, 2012, 4, 401-423.	5.1	482
26	A new spectrophotometric method to quantify dissolved manganese in marine pore waters. Marine Chemistry, 2011, 127, 56-63.	0.9	8
27	An In Situ Multispectral Imaging System for Planar Optodes in Sediments: Examples of High-Resolution Seasonal Patterns of pH. Aquatic Geochemistry, 2011, 17, 457-471.	1.5	20
28	Redox speciation and early diagenetic behavior of dissolved molybdenum in sulfidic muds. Marine Chemistry, 2011, 125, 101-107.	0.9	43
29	A fluorosensor for two-dimensional measurements of extracellular enzyme activity in marine sediments. Marine Chemistry, 2011, 123, 23-31.	0.9	12
30	Analysis of vitamin B₁₂ in seawater and marine sediment porewater using ELISA. Limnology and Oceanography: Methods, 2011, 9, 515-523.	1.0	14
31	A rapid response, planar fluorosensor for measuring twoâ€dimensional pCO₂ distributions and dynamics in marine sediments. Limnology and Oceanography: Methods, 2010, 8, 326-336.	1.0	18
32	Sedimentary organic matter distributions, burrowing activity, and biogeochemical cycling: Natural patterns and experimental artifacts. Estuarine, Coastal and Shelf Science, 2010, 90, 21-34.	0.9	37
33	Fluidized muds: a novel setting for the generation of biosphere diversity through geologic time*. Geobiology, 2010, 8, 169-178.	1.1	24
34	Unsteady diagenetic processes and sulfur biogeochemistry in tropical deltaic muds: Implications for oceanic isotope cycles and the sedimentary record. Geochimica Et Cosmochimica Acta, 2010, 74, 4671-4692.	1.6	129
35	A new method for the quantification of different redox-species of molybdenum (V and VI) in seawater. Marine Chemistry, 2009, 113, 250-256.	0.9	32
36	Spatial interactions in the <I>Macoma balthica</I> community control biogeochemical fluxes at the sediment-water interface and microbial abundances. Journal of Marine Research, 2009, 67, 43-70.	0.3	34

#	Article	IF	Citations
37	Early diagenetic cycling, incineration, and burial of sedimentary organic carbon in the central Gulf of Papua (Papua New Guinea). Journal of Geophysical Research, 2008, 113, .	3.3	71
38	Biological indicators of sedimentary dynamics in the central Gulf of Papua: Seasonal and decadal perspectives. Journal of Geophysical Research, 2008, 113, .	3.3	10
39	Drying effects on decomposition of salt marsh sediment and on lysine sorption. Journal of Marine Research, 2008, 66, 665-689.	0.3	10
40	Two-dimensional pH distributions and dynamics in bioturbated marine sediments. Geochimica Et Cosmochimica Acta, 2006, 70, 4933-4949.	1.6	118
41	Carbon remineralization in the Amazonâ€“Guianas tropical mobile mudbelt: A sedimentary incinerator. Continental Shelf Research, 2006, 26, 2241-2259.	0.9	181
42	Evidence of the activity of dissimilatory sulfate-reducing prokaryotes in nonsulfidogenic tropical mobile muds. FEMS Microbiology Ecology, 2006, 57, 169-181.	1.3	19
43	A new ratiometric, planar fluorosensor for measuring high resolution, two-dimensional pCO2 distributions in marine sediments. Marine Chemistry, 2006, 101, 40-53.	0.9	59
44	Nitrogen removal in marine environments: recent findings and future research challenges. Marine Chemistry, 2005, 94, 125-145.	0.9	142
45	Diffusion of organic and inorganic solutes through macrofaunal mucus secretions and tube linings in marine sediments. Journal of Marine Research, 2005, 63, 957-981.	0.3	32
46	Anaerobic ammonium oxidation by nitrite (anammox): Implications for N2 production in coastal marine sediments. Geochimica Et Cosmochimica Acta, 2005, 69, 2057-2065.	1.6	255
47	High-Performance Planar pH Fluorosensor for Two-Dimensional pH Measurements in Marine Sediment and Water. Environmental Science & Technology, 2005, 39, 8906-8911.	4.6	74
48	Rapid physical and biological particle mixing on an intertidal sandflat. Journal of Marine Research, 2004, 62, 67-92.	0.3	30
49	Conceptual models of early diagenetic processes: The muddy seafloor as an unsteady, batch reactor. Journal of Marine Research, 2004, 62, 815-835.	0.3	99
50	From bedrock to burial: the evolution of particulate organic carbon across coupled watershed-continental margin systems. Marine Chemistry, 2004, 92, 141-156.	0.9	155
51	Coupling between sedimentary dynamics, early diagenetic processes, and biogeochemical cycling in the Amazonâ€“Guianas mobile mud belt: coastal French Guiana. Marine Geology, 2004, 208, 331-360.	0.9	104
52	Physical disturbance creates bacterial dominance of benthic biological communities in tropical deltaic environments of the Gulf of Papua. Continental Shelf Research, 2004, 24, 2395-2416.	0.9	44
53	Coupling of early diagenetic processes and sedimentary dynamics in tropical shelf environments: the Gulf of Papua deltaic complex. Continental Shelf Research, 2004, 24, 2455-2486.	0.9	72
54	Early diagenesis of biogenic silica in the Amazon delta: alteration, authigenic clay formation, and storage. Geochimica Et Cosmochimica Acta, 2004, 68, 1061-1085.	1.6	234

#	Article	IF	Citations
55	Early diagenetic remineralization of sedimentary organic C in the Gulf of Papua deltaic complex (Papua) Tj ETQq1 1 0.784314 rgBT /O Cosmochimica Acta, 2004, 68, 1815-1825.	1.6	116
56	Organic matter diagenesis in shallow water carbonate sediments. Geochimica Et Cosmochimica Acta, 2004, 68, 4363-4379.	1.6	70
57	Biogeochemistry of Nonylphenol Ethoxylates in Urban Estuarine Sediments. Environmental Science & Technology, 2003, 37, 3499-3506.	4.6	57
58	The influence of macrofaunal burrow spacing and diffusive scaling on sedimentary nitrification and denitrification: An experimental simulation and model approach. Journal of Marine Research, 2003, 61, 101-125.	0.3	104
59	Organic matter flux and reactivity on a South Carolina sandflat: The impacts of porewater advection and macrobiological structures. Limnology and Oceanography, 2002, 47, 1056-1070.	1.6	77
60	A pH plate fluorosensor (optode) for early diagenetic studies of marine sediments. Limnology and Oceanography, 2002, 47, 212-220.	1.6	102
61	Effects of oxygen and redox oscillation on degradation of cell-associated lipids in surficial marine sediments. Geochimica Et Cosmochimica Acta, 2002, 66, 2003-2012.	1.6	121
62	Stable carbon isotope cycling in mobile coastal muds of AmapÃ¡, Brazil. Continental Shelf Research, 2002, 22, 2065-2079.	0.9	31
63	Paleoceanographic significance of sediment color on western North Atlantic drifts: I. Origin of color. Marine Geology, 2002, 189, 25-41.	0.9	78
64	Effects of gut chemistry in marine bivalves on the assimilation of metals from ingested sediment particles. Journal of Marine Research, 2002, 60, 101-120.	0.3	40
65	Early diagenesis of calcium carbonate in Long Island Sound sediments: Benthic fluxes of Ca²⁺ and minor elements during seasonal periods of net dissolution. Journal of Marine Research, 2001, 59, 769-794.	0.3	36
66	High prokaryote diversity and analysis of community structure in mobile mud deposits off French Guiana: identification of two new bacterial candidate divisions. FEMS Microbiology Ecology, 2001, 37, 197-209.	1.3	52
67	Origin of Amazon mudbanks along the northeastern coast of South America. Marine Geology, 2000, 163, 241-256.	0.9	148
68	The influence of deposit-feeding on chlorophyll-<I>a</I> degradation in coastal marine sediments. Journal of Marine Research, 2000, 58, 631-651.	0.3	44
69	Conversion of diatoms to clays during early diagenesis in tropical, continental shelf muds. Geology, 2000, 28, 1095.	2.0	95
70	Conversion of diatoms to clays during early diagenesis in tropical, continental shelf muds. Geology, 2000, 28, 1095-1098.	2.0	4
71	Enhanced degradation of algal lipids by benthic macrofaunal activity: Effect of <I>Yoldia limatula</I>. Journal of Marine Research, 1999, 57, 775-804.	0.3	62
72	Coupled anoxic nitrification/manganese reduction in marine sediments. Geochimica Et Cosmochimica Acta, 1999, 63, 49-66.	1.6	235

#	Article	IF	Citations
73	Mobile deltaic and continental shelf muds as suboxic, fluidized bed reactors. Marine Chemistry, 1998, 61, 143-155.	0.9	305
74	Impact of seasonal hypoxia on diagenesis of phytol and its derivatives in Long Island Sound. Marine Chemistry, 1998, 62, 157-173.	0.9	31
75	Biogeochemical heterogeneity and suboxic diagenesis in hemipelagic sediments of the Panama Basin. Deep-Sea Research Part I: Oceanographic Research Papers, 1998, 45, 133-165.	0.6	101
76	Importance of suspended participates in riverine delivery of bioavailable nitrogen to coastal zones. Global Biogeochemical Cycles, 1998, 12, 573-579.	1.9	142
77	Seasonal patterns of carbonate diagenesis in nearshore terrigenous muds: Relation to spring phytoplankton bloom and temperature. Journal of Marine Research, 1998, 56, 1097-1123.	0.3	48
78	The effect of biogenic irrigation intensity and solute exchange on diagenetic reaction rates in marine sediments. Journal of Marine Research, 1998, 56, 905-936.	0.3	349
79	Influence of carbonate dissolution on survival of shellâ€bearing meiobenthos in nearshore sediments. Limnology and Oceanography, 1998, 43, 18-28.	1.6	25
80	Infaunal density, biomass and bioturbation in the sediments of the Arctic Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 1997, 44, 1683-1704.	0.6	93
81	Sulfur diagenesis and burial on the Amazon shelf: Major control by physical sedimentation processes. Geo-Marine Letters, 1996, 16, 3-10.	0.5	44
82	Anaerobic methane oxidation on the Amazon shelf. Geochimica Et Cosmochimica Acta, 1995, 59, 3707-3715.	1.6	131
83	Quantifying sedimentary geochemical processes. Geochimica Et Cosmochimica Acta, 1995, 59, 4786.	1.6	0
84	Rapid Clay Mineral Formation in Amazon Delta Sediments: Reverse Weathering and Oceanic Elemental Cycles. Science, 1995, 270, 614-617.	6.0	324
85	Spatial and temporal distributions of sedimentary chloropigments as indicators of benthic processes in Long Island Sound. Journal of Marine Research, 1994, 52, 149-176.	0.3	95
86	Bioturbation and remineralization of sedimentary organic matter: effects of redox oscillation. Chemical Geology, 1994, 114, 331-345.	1.4	640
87	Fluorine uptake by Amazon continental shelf sediment and its impact on the global fluorine cycle. Continental Shelf Research, 1994, 14, 883-907.	0.9	29
88	The sedimentary Mn cycle in Long Island Sound: Its role as intermediate oxidant and the influence of bioturbation, O₂, and C_{org} flux on diagenetic reaction balances. Journal of Marine Research, 1994, 52, 259-295.	0.3	200
89	Laboratory studies of oxic and anoxic degradation of chlorophyll-a in Long Island Sound sediments. Geochimica Et Cosmochimica Acta, 1993, 57, 147-157.	1.6	176
90	Anoxic and oxic degradation of ¹⁴Câ€labeled chloropigments and a ¹⁴Câ€labeled diatom in Long Island Sound sediments. Limnology and Oceanography, 1993, 38, 1438-1451.	1.6	102

#	Article	IF	Citations
91	Carbonate dissolution and temporal abundances of Foraminifera in Long Island Sound sediments. Limnology and Oceanography, 1993, 38, 331-345.	1.6	88
92	Rapid, small-volume, flow injection analysis for SCO2, and NH4+ in marine and freshwaters. Limnology and Oceanography, 1992, 37, 1113-1119.	1.6	452
93	Meiofauna and solute transport in marine muds. Limnology and Oceanography, 1992, 37, 1018-1033.	1.6	203
94	Experimental evaluation of the influences of biogenic reworking on carbonate preservation in nearshore sediments. Marine Geology, 1992, 107, 175-181.	0.9	25
95	Fluorine mobility during early diagenesis of carbonate sediment: An indicator of mineral transformations. Geochimica Et Cosmochimica Acta, 1991, 55, 2491-2509.	1.6	92
96	Biogeochemical Processes in Amazon Shelf Sediments. Oceanography, 1991, 4, 27-32.	0.5	29
97	Direct measurement of dissolved inorganic nitrogen exchange and denitrification in individual polychaete (<I>Nereis virens</I>) burrows. Journal of Marine Research, 1991, 49, 355-377.	0.3	129
98	Early diagenesis of chlorophyll-<I>a</I> in Long Island Sound sediments: A measure of carbon flux and particle reworking. Journal of Marine Research, 1991, 49, 379-401.	0.3	185
99	Oxic and anoxic decomposition of tubes from the burrowing sea anemone <I>Ceriantheopsis americanus:</I> Implications for bulk sediment carbon and nitrogen balance. Journal of Marine Research, 1991, 49, 589-617.	0.3	27
100	Complete oxidation of solid phase sulfides by manganese and bacteria in anoxic marine sediments. Geochimica Et Cosmochimica Acta, 1988, 52, 751-765.	1.6	355
101	The effects of iron reduction and nonsteady-state diagenesis on iodine, ammonium, and boron distributions in sediments from the Amazon continental shelf. Continental Shelf Research, 1988, 8, 363-386.	0.9	34
102	Evidence for localized enhancement of biological associated with tube and burrow structures in deep-sea sediments at the HEEBLE site, western North Atlantic. Deep-sea Research Part A, Oceanographic Research Papers, 1986, 33, 755-790.	1.6	231
103	General characteristics of benthic faunas on the Amazon inner continental shelf with comparison to the shelf off the Changjiang River, East China Sea. Continental Shelf Research, 1986, 6, 291-310.	0.9	81
104	The effects of clay mineral reactions on dissolved Al distributions in sediments and waters of the Amazon continental shelf. Continental Shelf Research, 1986, 6, 245-262.	0.9	53
105	Effects of the marine deposit-feeders <I>Heteromastus filiformis</I> (Polychaeta), <I>Macoma balthica</I> (Bivalvia), and <I>Tellina texana</I> (Bivalvia) on averaged sedimentary solute transport, reaction rates, and microbial distributions. Journal of Marine Research, 1985, 43, 615-645.	0.3	224
106	Physical irrigation of relict burrows: Implications for sediment chemistry. Marine Geology, 1985, 62, 371-379.	0.9	39
107	Early chemical diagenesis, sediment-water solute exchange, and storage of reactive organic matter near the mouth of the Changjiang, East China Sea. Continental Shelf Research, 1985, 4, 227-251.	0.9	124
108	The geochemistry of iodine in near-shore carbonate sediments. Geochimica Et Cosmochimica Acta, 1985, 49, 967-978.	1.6	62

#	Article	IF	Citations
109	Microbial Geochemistry. W. E. Krumbein. Journal of Geology, 1985, 93, 623-623.	0.7	0
110	Ammonium adsorption in marine sediments1. Limnology and Oceanography, 1984, 29, 250-257.	1.6	231
111	Processes affecting the behavior of dissolved aluminum in estuarine waters. Marine Chemistry, 1984, 14, 213-232.	0.9	69
112	Preservation of reactive organic matter in marine sediments. Earth and Planetary Science Letters, 1984, 70, 260-266.	1.8	30
113	Estimates of particle flux and reworking at the deep-sea floor using234Th/238U disequilibrium. Earth and Planetary Science Letters, 1984, 67, 308-318.	1.8	93
114	Dissolved Al in sediments and waters of the East China Sea: Implications for authigenic mineral formation. Geochimica Et Cosmochimica Acta, 1984, 48, 281-297.	1.6	112
115	Diagenesis of dissolved aluminum in organic-rich estuarine sediments. Geochimica Et Cosmochimica Acta, 1984, 48, 299-313.	1.6	69
116	The importance of relict burrow structures and burrow irrigation in controlling sedimentary solute distributions. Geochimica Et Cosmochimica Acta, 1984, 48, 1929-1934.	1.6	86
117	The infinite dilution diffusion coefficient for A1(OH)4â˜ at 25Â°C. Geochimica Et Cosmochimica Acta, 1983, 47, 959-961.	1.6	16
118	Comparative biogeochemistry of water in intertidal <I>Onuphis</I> (polychaeta) and <I>Upogebia</I> (crustacea) burrows: temporal patterns and causes. Journal of Marine Research, 1983, 41, 571-604.	0.3	110
119	The importance of the diffusive permeability of animal burrow linings in determining marine sediment chemistry. Journal of Marine Research, 1983, 41, 299-322.	0.3	164
120	Diffusion coefficients in nearshore marine sediments1. Limnology and Oceanography, 1982, 27, 552-556.	1.6	757
121	Carbonate Dissolution in Nearshore Terrigenous Muds: The Role of Physical and Biological Reworking. Journal of Geology, 1982, 90, 79-95.	0.7	246
122	Biological activity and associated sedimentary structures in HEBBLE-area deposits, western North Atlantic. Marine Geology, 1982, 48, M7-M15.	0.9	44
123	Chemistry and Biogeochemistry of Estuaries. Geochimica Et Cosmochimica Acta, 1981, 45, 780.	1.6	0
124	The Sources and Sinks of Nuclides in Long Island Sound. Advances in Geophysics, 1980, 22, 129-164.	1.1	45
125	Diagenetic Processes Near the Sediment-Water Interface of Long Island Sound. II. Fe and Mn. Advances in Geophysics, 1980, 22, 351-415.	1.1	160
126	Dissolved iodine flux from estuarine sediments and implications for the enrichment of iodine at the sediment water interface. Geochimica Et Cosmochimica Acta, 1980, 44, 1177-1184.	1.6	78

#	Article	IF	Citations
127	Quantifying solute distributions in the bioturbated zone of marine sediments by defining an average microenvironment. Geochimica Et Cosmochimica Acta, 1980, 44, 1955-1965.	1.6	327
128	Tracking particle-associated processes in nearshore environments by use of 234Th/238U disequilibrium. Earth and Planetary Science Letters, 1980, 47, 161-175.	1.8	120
129	Particle reworking in sediments from the New York Bight apex: Evidence from 234Th/238U disequilibrium. Estuarine and Coastal Marine Science, 1979, 9, 739-IN4.	0.9	49
130	Sulfate reduction, diffusion, and bioturbation in Long Island Sound sediments; report of the FOAM Group. Numerische Mathematik, 1977, 277, 193-237.	0.7	328
131	234Th/238U disequilibrium in near-shore sediment: Particle reworking and diagenetic time scales. Earth and Planetary Science Letters, 1976, 29, 37-50.	1.8	265
132	Calcification in the bivalve periostracum. Lethaia, 1975, 8, 315-320.	0.6	55
133	Coral Growth Related to Resuspension of Bottom Sediments. Nature, 1974, 247, 574-577.	13.7	182
134	Prefabrication of shell ornamentation in the bivalve Laternula. Lethaia, 1974, 7, 43-56.	0.6	32