Bo Barker JÃ¸rgensen

List of Publications by Year
in descending order

127 papers	23,138 citations	15504 65 h-index	17105 122 g-index
128 all docs	128 docs citations	128 times ranked	12665 citing authors

#	Article	IF	Citations
1	A marine microbial consortium apparently mediating anaerobic oxidation of methane. Nature, 2000, 407, 623-626.	27.8	2,636
2	Mineralization of organic matter in the sea bedâ€"the role of sulphate reduction. Nature, 1982, 296, 643-645.	27.8	1,597
3	Anaerobic ammonium oxidation by anammox bacteria in the Black Sea. Nature, 2003, 422, 608-611.	27.8	1,081
4	The sulfur cycle of a coastal marine sediment (Limfjorden, Denmark)1. Limnology and Oceanography, 1977, 22, 814-832.	3.1	794
5	Measurement of bacterial sulfate reduction in sediments: Evaluation of a single-step chromium reduction method. Biogeochemistry, 1989, 8, 205.	3.5	702
6	Distributions of Microbial Activities in Deep Subseafloor Sediments. Science, 2004, 306, 2216-2221.	12.6	681
7	Microbial Reefs in the Black Sea Fueled by Anaerobic Oxidation of Methane. Science, 2002, 297, 1013-1015.	12.6	673
8	Microelectrodes: Their Use in Microbial Ecology. Advances in Microbial Ecology, 1986, , 293-352.	0.1	668
9	From The Cover: Massive nitrogen loss from the Benguela upwelling system through anaerobic ammonium oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6478-6483.	7.1	664
10	Diffusive boundary layers and the oxygen uptake of sediments and detritus1. Limnology and Oceanography, 1985, 30, 111-122.	3.1	638
11	Manganese, iron and sulfur cycling in a coastal marine sediment, Aarhus bay, Denmark. Geochimica Et Cosmochimica Acta, 1994, 58, 5115-5129.	3.9	584
12	Microbial life under extreme energy limitation. Nature Reviews Microbiology, 2013, 11, 83-94.	28.6	582
13	Feast and famine â€" microbial life in the deep-sea bed. Nature Reviews Microbiology, 2007, 5, 770-781.	28.6	577
14	Big Bacteria. Annual Review of Microbiology, 2001, 55, 105-137.	7.3	445
15	The Biogeochemical Sulfur Cycle of Marine Sediments. Frontiers in Microbiology, 2019, 10, 849.	3.5	375
16	Anaerobic methane oxidation and a deep H2S sink generate isotopically heavy sulfides in Black Sea sediments. Geochimica Et Cosmochimica Acta, 2004, 68, 2095-2118.	3.9	341
17	Pathways and Microbiology of Thiosulfate Transformations and Sulfate Reduction in a Marine Sediment (Kattegat, Denmark). Applied and Environmental Microbiology, 1991, 57, 847-856.	3.1	329
18	A cryptic sulfur cycle driven by iron in the methane zone of marine sediment (Aarhus Bay, Denmark). Geochimica Et Cosmochimica Acta, 2011, 75, 3581-3599.	3.9	288

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19	Life under extreme energy limitation: a synthesis of laboratory- and field-based investigations. FEMS Microbiology Reviews, 2015, 39, 688-728.	8.6	288
20	Biogeochemistry of pyrite and iron sulfide oxidation in marine sediments. Geochimica Et Cosmochimica Acta, 2002, 66, 85-92.	3.9	285
21	Diffusive and total oxygen uptake of deep-sea sediments in the eastern South Atlantic Ocean:in situ and laboratory measurements. Deep-Sea Research Part I: Oceanographic Research Papers, 1994, 41, 1767-1788.	1.4	258
22	Origin, dynamics, and implications of extracellular DNA pools in marine sediments. Marine Genomics, 2015, 24, 185-196.	1.1	255
23	Microsensor Measurements of Sulfate Reduction and Sulfide Oxidation in Compact Microbial Communities of Aerobic Biofilms. Applied and Environmental Microbiology, 1992, 58, 1164-1174.	3.1	252
24	Diversity and abundance of sulfate-reducing microorganisms in the sulfate and methane zones of a marine sediment, Black Sea. Environmental Microbiology, 2007, 9, 131-142.	3.8	233
25	A comparison of oxygen, nitrate, and sulfate respiration in coastal marine sediments. Microbial Ecology, 1979, 5, 105-115.	2.8	232
26	Sulfate reduction and anaerobic methane oxidation in Black Sea sediments. Deep-Sea Research Part I: Oceanographic Research Papers, 2001, 48, 2097-2120.	1.4	222
27	Characterization of Specific Membrane Fatty Acids as Chemotaxonomic Markers for Sulfate-Reducing Bacteria Involved in Anaerobic Oxidation of Methane. Geomicrobiology Journal, 2003, 20, 403-419.	2.0	222
28	Sulfide oxidation in the anoxic Black Sea chemocline. Deep-sea Research Part A, Oceanographic Research Papers, 1991, 38, S1083-S1103.	1.5	214
29	Sulfate-Reducing Bacteria and Their Activities in Cyanobacterial Mats of Solar Lake (Sinai, Egypt). Applied and Environmental Microbiology, 1998, 64, 2943-2951.	3.1	204
30	Sulfateâ€reducing bacteria in marine sediment (Aarhus Bay, Denmark): abundance and diversity related to geochemical zonation. Environmental Microbiology, 2009, 11, 1278-1291.	3.8	195
31	Global diffusive fluxes of methane in marine sediments. Nature Geoscience, 2018, 11, 421-425.	12.9	192
32	Solar Lake (Sinai). 5. The sulfur cycle of the bcnthic cyanobacterial mats1. Limnology and Oceanography, 1977, 22, 657-666.	3.1	184
33	Microbial ecology of the stratified water column of the Black Sea as revealed by a comprehensive biomarker study. Organic Geochemistry, 2007, 38, 2070-2097.	1.8	184
34	Environmental control on anaerobic oxidation of methane in the gassy sediments of EckernfÃ¶rde Bay (German Baltic). Limnology and Oceanography, 2005, 50, 1771-1786.	3.1	181
35	Regulation of bacterial sulfate reduction and hydrogen sulfide fluxes in the central namibian coastal upwelling zone. Geochimica Et Cosmochimica Acta, 2003, 67, 4505-4518.	3.9	176
36	Anaerobic oxidation of methane and sulfate reduction along the Chilean continental margin. Geochimica Et Cosmochimica Acta, 2005, 69, 2767-2779.	3.9	173

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37	Genome sequencing of a single cell of the widely distributed marine subsurface <i>Dehalococcoidia,</i> phylum <i>Chloroflexi</i>. ISME Journal, 2014, 8, 383-397.	9.8	172
38	Biological and chemical sulfide oxidation in a Beggiatoa inhabited marine sediment. ISME Journal, 2007, 1, 341-353.	9.8	170
39	Seasonal dynamics of elemental sulfur in two coastal sediments. Estuarine, Coastal and Shelf Science, 1982, 15, 255-266.	2.1	160
40	Sulfur Cycling and Methane Oxidation. , 2006, , 271-309.		159
41	Sulfate reduction and the formation of 35Sâ€labeled FeS, FeS2, and S0 in coastal marine sediments. Limnology and Oceanography, 1989, 34, 793-806.	3.1	151
42	Influence of water column dynamics on sulfide oxidation and other major biogeochemical processes in the chemocline of Mariager Fjord (Denmark). Marine Chemistry, 2001, 74, 29-51.	2.3	142
43	Slow Microbial Life in the Seabed. Annual Review of Marine Science, 2016, 8, 311-332.	11.6	134
44	Microbial sulfate reduction in deep-sea sediments at the Guaymas Basin hydrothermal vent area: Influence of temperature and substrates. Geochimica Et Cosmochimica Acta, 1994, 58, 3335-3343.	3.9	133
45	ECOLOGY: A Starving Majority Deep Beneath the Seafloor. Science, 2006, 314, 932-934.	12.6	122
46	Community Size and Metabolic Rates of Psychrophilic Sulfate-Reducing Bacteria in Arctic Marine Sediments. Applied and Environmental Microbiology, 1999, 65, 4230-4233.	3.1	121
47	Temperature dependence of aerobic respiration in a coastal sediment. FEMS Microbiology Ecology, 1998, 25, 189-200.	2.7	114
48	Bacteria and Marine Biogeochemistry. , 2000, , 173-207.		110
49	Oxidation and reduction of radiolabeled inorganic sulfur compounds in an estuarine sediment, Kysing Fjord, Denmark. Geochimica Et Cosmochimica Acta, 1990, 54, 2731-2742.	3.9	107
50	Controls on stable sulfur isotope fractionation during bacterial sulfate reduction in Arctic sediments. Geochimica Et Cosmochimica Acta, 2001, 65, 763-776.	3.9	106
51	Effect of temperature on sulphate reduction, growth rate and growth yield in five psychrophilic sulphate-reducing bacteria from Arctic sediments. Environmental Microbiology, 1999, 1, 457-467.	3.8	100
52	Microoxic-Anoxic Niche of <i>Beggiatoa</i> spp.: Microelectrode Survey of Marine and Freshwater Strains. Applied and Environmental Microbiology, 1986, 52, 161-168.	3.1	98
53	Iron oxide reduction in methane-rich deep Baltic Sea sediments. Geochimica Et Cosmochimica Acta, 2017, 207, 256-276.	3.9	95
54	Material flux in the sediment. Coastal and Estuarine Studies, 1996, , 115-135.	0.4	93

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55	Anoxie transformations of radiolabeled hydrogen sulfide in marine and freshwater sediments. Geochimica Et Cosmochimica Acta, 1992, 56, 2425-2435.	3.9	92
56	Phylogeny and distribution of nitrate-storing Beggiatoa spp. in coastal marine sediments. Environmental Microbiology, 2003, 5, 523-533.	3.8	91
57	Bacteria and Marine Biogeochemistry. , 2006, , 169-206.		86
58	Activity and community structures of sulfate-reducing microorganisms in polar, temperate and tropical marine sediments. ISME Journal, 2016, 10, 796-809.	9.8	85
59	Dispersal of thermophilic <i>Desulfotomaculum</i> endospores into Baltic Sea sediments over thousands of years. ISME Journal, 2013, 7, 72-84.	9.8	82
60	Bacterial sulfate reduction in hydrothermal sediments of the Guaymas Basin, Gulf of California, Mexico. Deep-Sea Research Part I: Oceanographic Research Papers, 2002, 49, 827-841.	1.4	78
61	Single-Cell Genome and Group-Specific <i>dsrAB</i> Sequencing Implicate Marine Members of the Class <i>Dehalococcoidia</i> (Phylum <i>Chloroflexi</i>) in Sulfur Cycling. MBio, 2016, 7, .	4.1	78
62	Emissions of biogenic sulfur gases from a danish estuary. Atmospheric Environment, 1985, 19, 1737-1749.	1.0	77
63	Algal and archaeal polyisoprenoids in a recent marine sediment: Molecular isotopic evidence for anaerobic oxidation of methane. Geochemistry, Geophysics, Geosystems, 2001, 2, n/a-n/a.	2.5	77
64	Coexistence of Microaerophilic, Nitrate-Reducing, and Phototrophic Fe(II) Oxidizers and Fe(III) Reducers in Coastal Marine Sediment. Applied and Environmental Microbiology, 2016, 82, 1433-1447.	3.1	76
65	Thermophilic bacterial sulfate reduction in deep-sea sediments at the Guaymas Basin hydrothermal vent site (Gulf of California). Deep-sea Research Part A, Oceanographic Research Papers, 1990, 37, 695-710.	1.5	74
66	Biogeochemistry of sulfur and iron in Thioploca-colonized surface sediments in the upwelling area off central chile. Geochimica Et Cosmochimica Acta, 2008, 72, 827-843.	3.9	73
67	Bioturbation as a key driver behind the dominance of Bacteria over Archaea in near-surface sediment. Scientific Reports, 2017, 7, 2400.	3.3	73
68	Control of sulphate and methane distributions in marine sediments by organic matter reactivity. Geochimica Et Cosmochimica Acta, 2013, 104, 183-193.	3.9	72
69	Thiosulfate and sulfite distributions in porewater of marine sediments related to manganese, iron, and sulfur geochemistry. Geochimica Et Cosmochimica Acta, 1994, 58, 67-73.	3.9	70
70	Sulfate reduction below the sulfateâ€“methane transition in Black Sea sediments. Deep-Sea Research Part I: Oceanographic Research Papers, 2011, 58, 493-504.	1.4	70
71	Response of fermentation and sulfate reduction to experimental temperature changes in temperate and Arctic marine sediments. ISME Journal, 2008, 2, 815-829.	9.8	68
72	Thermophilic anaerobes in Arctic marine sediments induced to mineralize complex organic matter at high temperature. Environmental Microbiology, 2010, 12, 1089-1104.	3.8	61

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73	Concurrent low- and high-affinity sulfate reduction kinetics in marine sediment. Geochimica Et Cosmochimica Acta, 2011, 75, 2997-3010.	3.9	61
74	Microbial turnover times in the deep seabed studied by amino acid racemization modelling. Scientific Reports, 2017, 7, 5680.	3.3	61
75	Oxygen uptake, bacterial distribution, and carbon-nitrogen-sulfur cycling in sediments from the baltic sea - North sea transition. Ophelia, 1989, 31, 29-49.	0.3	60
76	Controls on subsurface methane fluxes and shallow gas formation in Baltic Sea sediment (Aarhus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.9	57
77	Organoclastic sulfate reduction in the sulfate-methane transition of marine sediments. Geochimica Et Cosmochimica Acta, 2019, 254, 231-245.	3.9	56
78	Shrinking majority of the deep biosphere. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15976-15977.	7.1	55
79	Marine Deep Biosphere Microbial Communities Assemble in Near-Surface Sediments in Aarhus Bay. Frontiers in Microbiology, 2019, 10, 758.	3.5	54
80	Depth Distribution and Assembly of Sulfate-Reducing Microbial Communities in Marine Sediments of Aarhus Bay. Applied and Environmental Microbiology, 2017, 83, .	3.1	53
81	Uncultured <scp><i>D</i></scp><i>esulfobacteraceae</i> and <scp>C</scp>renarchaeotal group <scp>C</scp>3 incorporate ¹³<scp>C</scp>â€acetate in coastal marine sediment. Environmental Microbiology Reports, 2015, 7, 614-622.	2.4	51
82	Sulfate Reduction in Marine Sediments. , 2000, , 263-281.		51
83	Bacterial interactions during sequential degradation of cyanobacterial necromass in a sulfidic arctic marine sediment. Environmental Microbiology, 2018, 20, 2927-2940.	3.8	50
84	Sediment oxygen consumption: Role in the global marine carbon cycle. Earth-Science Reviews, 2022, 228, 103987.	9.1	50
85	Preservation of microbial DNA in marine sediments: insights from extracellular DNA pools. Environmental Microbiology, 2018, 20, 4526-4542.	3.8	48
86	Quantification of dissimilatory (bi)sulphite reductase gene expression in <i>Desulfobacterium autotrophicum</i> using realâ€time RTâ€PCR. Environmental Microbiology, 2003, 5, 660-671.	3.8	47
87	Desulfovibrio frigidus sp. nov. and Desulfovibrio ferrireducens sp. nov., psychrotolerant bacteria isolated from Arctic fjord sediments (Svalbard) with the ability to reduce Fe(III). International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 681-685.	1.7	47
88	Direct analysis of volatile fatty acids in marine sediment porewater by twoâ€dimensional ion chromatographyâ€mass spectrometry. Limnology and Oceanography: Methods, 2014, 12, 455-468.	2.0	46
89	Sulfate reduction in Black Sea sediments: in situ and laboratory radiotracer measurements from the shelf to 2000m depth. Deep-Sea Research Part I: Oceanographic Research Papers, 2001, 48, 2073-2096.	1.4	43
90	The Impact of Sediment and Carbon Fluxes on the Biogeochemistry of Methane and Sulfur in Littoral Baltic Sea Sediments (HimmerfjÃrden, Sweden). Estuaries and Coasts, 2013, 36, 98-115.	2.2	42

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91	Anaerobic microbial Fe(II) oxidation and Fe(III) reduction in coastal marine sediments controlled by organic carbon content. Environmental Microbiology, 2016, 18, 3159-3174.	3.8	42
92	Environmental filtering determines family-level structure of sulfate-reducing microbial communities in subsurface marine sediments. ISME Journal, 2019, 13, 1920-1932.	9.8	40
93	Macrofaunal control of microbial community structure in continental margin sediments. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15911-15922.	7.1	40
94	Thriving or surviving? Evaluating active microbial guilds in Baltic Sea sediment. Environmental Microbiology Reports, 2017, 9, 528-536.	2.4	39
95	Sulfidization of lacustrine glacial clay upon Holocene marine transgression (Arkona Basin, Baltic) Tj ETQq1 1 0.784314 rgBT /Overlock	3.9	38
96	Controls on volatile fatty acid concentrations in marine sediments (Baltic Sea). Geochimica Et Cosmochimica Acta, 2019, 258, 226-241.	3.9	38
97	Sulfur isotope exchange between 35S-labeled inorganic sulfur compounds in anoxic marine sediments. Marine Chemistry, 1992, 38, 117-132.	2.3	36
98	Desulfoconvexum algidum gen. nov., sp. nov., a psychrophilic sulfate-reducing bacterium isolated from a permanently cold marine sediment. International Journal of Systematic and Evolutionary Microbiology, 2013, 63, 959-964.	1.7	36
99	Case study â€" Aarhus Bay. Coastal and Estuarine Studies, 1996, , 137-154.	0.4	35
100	Cyclic 100-ka (glacial-interglacial) migration of subseafloor redox zonation on the Peruvian shelf. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18098-18103.	7.1	35
101	Factors controlling the carbon isotope composition of dissolved inorganic carbon and methane in marine porewater: An evaluation by reaction-transport modelling. Journal of Marine Systems, 2019, 200, 103227.	2.1	35
102	Sulfate reduction in marine sediments from the Baltic Sea-North Sea Transition. Ophelia, 1989, 31, 1-15.	0.3	34
103	Iron-controlled oxidative sulfur cycling recorded in the distribution and isotopic composition of sulfur species in glacially influenced fjord sediments of west Svalbard. Chemical Geology, 2017, 466, 678-695.	3.3	33
104	Early diagenesis of iron and sulfur in Bornholm Basin sediments: The role of near-surface pyrite formation. Geochimica Et Cosmochimica Acta, 2020, 284, 43-60.	3.9	33
105	Estimation of biogeochemical rates from concentration profiles: A novel inverse method. Estuarine, Coastal and Shelf Science, 2012, 100, 26-37.	2.1	32
106	Transcriptional analysis of sulfate reducing and chemolithoautotrophic sulfur oxidizing bacteria in the deep subseafloor. Environmental Microbiology Reports, 2016, 8, 452-460.	2.4	32
107	Filamentous sulfur bacteria, Beggiatoa spp., in arctic marine sediments (Svalbard, 79Â°N). FEMS Microbiology Ecology, 2010, 73, no-no.	2.7	31
108	The multiple sulphur isotope fingerprint of a sub-seafloor oxidative sulphur cycle driven by iron. Earth and Planetary Science Letters, 2020, 536, 116165.	4.4	29

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109	Multiple sulfur isotopes discriminate organoclastic and methane-based sulfate reduction by sub-seafloor pyrite formation. Geochimica Et Cosmochimica Acta, 2022, 316, 309-330.	3.9	28
110	Quantification of sulphide oxidation rates in marine sediment. Geochimica Et Cosmochimica Acta, 2020, 280, 441-452.	3.9	27
111	The marine sulfate reducer Desulfobacterium autotrophicum HRM2 can switch between low and high apparent half-saturation constants for dissimilatory sulfate reduction. FEMS Microbiology Ecology, 2017, 93, .	2.7	24
112	Diffusion processes and boundary layers in microbial mats. , 1994, , 243-253.		24
113	Phosphate geochemistry, mineralization processes, and Thioploca distribution in shelf sediments off central Chile. Marine Geology, 2010, 277, 61-72.	2.1	22
114	Glacial influence on the iron and sulfur cycles in Arctic fjord sediments (Svalbard). Geochimica Et Cosmochimica Acta, 2020, 280, 423-440.	3.9	20
115	Sulfate reduction and thiosulfate transformations in a cyanobacterial mat during a diel oxygen cycle. FEMS Microbiology Ecology, 1994, 13, 303-312.	2.7	19
116	Sulphur and carbon isotopes as tracers of past sub-seafloor microbial activity. Scientific Reports, 2019, 9, 604.	3.3	19
117	Glacial controls on redox-sensitive trace element cycling in Arctic fjord sediments (Spitsbergen,) Tj ETQq1 1 0.784314 rgBT /Overlock 10	3.9	19
118	Big sulfur bacteria. ISME Journal, 2010, 4, 1083-1084.	9.8	18
119	Unravelling the sulphur cycle of marine sediments. Environmental Microbiology, 2019, 21, 3533-3538.	3.8	12
120	Estimating the Abundance of Endospores of Sulfate-Reducing Bacteria in Environmental Samples by Inducing Germination and Exponential Growth. Geomicrobiology Journal, 2017, 34, 338-345.	2.0	11
121	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.	3.1	11
122	Psychrophilic properties of sulfateâ€reducing bacteria in Arctic marine sediments. Limnology and Oceanography, 2021, 66, S293.	3.1	8
123	Response to substrate limitation by a marine sulfate-reducing bacterium. ISME Journal, 2022, 16, 200-210.	9.8	7
124	Early diagenesis of sulfur in Bornholm Basin sediments: The role of upward diffusion of isotopically â€œheavyâ€• sulfide. Geochimica Et Cosmochimica Acta, 2021, 313, 359-377.	3.9	7
125	Die Mikrowelt der Meeresbakterien. Die Naturwissenschaften, 1995, 82, 269-278.	1.6	5
126	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.	2.1	5

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127	Influence of Fe(III) source, light quality, photon flux and presence of oxygen on photoreduction of Fe(III)-organic complexes â€“ Implications for light-influenced coastal freshwater and marine sediments. Science of the Total Environment, 2022, 814, 152767.	8.0	5