Hans RÃ¸y

List of Publications by Year
in descending order

80 papers	3,640 citations	117625 34 h-index	149698 56 g-index
83 all docs	83 docs citations	83 times ranked	3831 citing authors

#	Article	IF	Citations
1	Understanding the isotopic composition of sedimentary sulfide: A multiple sulfur isotope diagenetic model for Aarhus Bay. Numerische Mathematik, 2022, 322, 1-27.	1.4	7
2	Methane production controls in a young thermokarst lake formed by abrupt permafrost thaw. Global Change Biology, 2022, 28, 3206-3221.	9.5	7
3	Nitrite is a more efficient inhibitor of microbial sulfate reduction in oil reservoirs compared to nitrate and perchlorate: A laboratory and field-scale simulation study. International Biodeterioration and Biodegradation, 2021, 157, 105154.	3.9	17
4	Psychrophilic properties of sulfateâ€reducing bacteria in Arctic marine sediments. Limnology and Oceanography, 2021, 66, S293.	3.1	8
5	Insolation vs. meltwater control of productivity and sea surface conditions off SW Greenland during the Holocene. Boreas, 2021, 50, 631-651.	2.4	9
6	Potentially bioavailable iron produced through benthic cycling in glaciated Arctic fjords of Svalbard. Nature Communications, 2021, 12, 1349.	12.8	26
7	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
8	Reactivity of Iron Minerals in the Seabed Toward Microbial Reduction â€“ A Comparison of Different Extraction Techniques. Geomicrobiology Journal, 2020, 37, 170-189.	2.0	22
9	Holocene sedimentary and environmental development of Aarhus Bay, Denmark â€“ a multiâ€proxy study. Boreas, 2020, 49, 108-128.	2.4	5
10	Glacial controls on redox-sensitive trace element cycling in Arctic fjord sediments (Spitsbergen,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 38	3.9	19
11	Constraints on CaCO3 precipitation in superabsorbent polymer by aerobic bacteria. Applied Microbiology and Biotechnology, 2020, 104, 365-375.	3.6	16
12	Physicochemical and biological controls of sulfide accumulation in a high temperature oil reservoir. Applied Microbiology and Biotechnology, 2020, 104, 8467-8478.	3.6	7
13	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
14	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
15	Glacial influence on the iron and sulfur cycles in Arctic fjord sediments (Svalbard). Geochimica Et Cosmochimica Acta, 2020, 280, 423-440.	3.9	20
16	The Polyextremophilic Bacterium Clostridium paradoxum Attains Piezophilic Traits by Modulating Its Energy Metabolism and Cell Membrane Composition. Applied and Environmental Microbiology, 2019, 85, .	3.1	18
17	Controls on volatile fatty acid concentrations in marine sediments (Baltic Sea). Geochimica Et Cosmochimica Acta, 2019, 258, 226-241.	3.9	38
18	Marine Deep Biosphere Microbial Communities Assemble in Near-Surface Sediments in Aarhus Bay. Frontiers in Microbiology, 2019, 10, 758.	3.5	54

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19	Environmental filtering determines family-level structure of sulfate-reducing microbial communities in subsurface marine sediments. ISME Journal, 2019, 13, 1920-1932.	9.8	40
20	Organoclastic sulfate reduction in the sulfate-methane transition of marine sediments. Geochimica Et Cosmochimica Acta, 2019, 254, 231-245.	3.9	56
21	Kinetics of organic carbon mineralization and methane formation in marine sediments (Aarhus Bay,) Tj ETQq1 1 0.784314 rgBT /Overlo	3.9	23
22	Optical Sensing of pH and O₂ in the Evaluation of Bioactive Self-Healing Cement. ACS Omega, 2019, 4, 20237-20243.	3.5	16
23	Glacial Runoff Promotes Deep Burial of Sulfur Cycling-Associated Microorganisms in Marine Sediments. Frontiers in Microbiology, 2019, 10, 2558.	3.5	16
24	Cryptic CH4 cycling in the sulfateâ€"methane transition of marine sediments apparently mediated by ANME-1 archaea. ISME Journal, 2019, 13, 250-262.	9.8	90
25	Microbial Organic Matter Degradation Potential in Baltic Sea Sediments Is Influenced by Depositional Conditions and In Situ Geochemistry. Applied and Environmental Microbiology, 2019, 85, .	3.1	37
26	Methylotrophic methanogenesis fuels cryptic methane cycling in marine surface sediment. Limnology and Oceanography, 2018, 63, 1519-1527.	3.1	42
27	Control on rate and pathway of anaerobic organic carbon degradation in the seabed. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 367-372.	7.1	126
28	Intracellular nitrate in sediments of an oxygen-deficient marine basin is linked to pelagic diatoms. FEMS Microbiology Ecology, 2018, 94, .	2.7	3
29	Deep-biosphere methane production stimulated by geofluids in the Nankai accretionary complex. Science Advances, 2018, 4, eaao4631.	10.3	79
30	The sulfur cycle below the sulfate-methane transition of marine sediments. Geochimica Et Cosmochimica Acta, 2018, 239, 74-89.	3.9	44
31	Sulfate Transporters in Dissimilatory Sulfate Reducing Microorganisms: A Comparative Genomics Analysis. Frontiers in Microbiology, 2018, 9, 309.	3.5	63
32	Meltwater and seasonality influence on Subpolar Gyre circulation during the Holocene. Palaeogeography, Palaeoclimatology, Palaeoecology, 2018, 502, 104-118.	2.3	13
33	Methane fluxes in marine sediments quantified through core analyses and seismo-acoustic mapping (Bornholm Basin, Baltic Sea). Geochimica Et Cosmochimica Acta, 2018, 239, 255-274.	3.9	18
34	Carbon oxidation and bioirrigation in sediments along a Skagerrak-Kattegat-Belt Sea depth transect. Marine Ecology - Progress Series, 2018, 604, 33-50.	1.9	13
35	Quantification of anaerobic thermophilic endospores in marine sediment by microcalorimetry, and its use in bioprospecting for gas and oil. Limnology and Oceanography: Methods, 2017, 15, 519-530.	2.0	8
36	Microbial turnover times in the deep seabed studied by amino acid racemization modelling. Scientific Reports, 2017, 7, 5680.	3.3	61

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37	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
38	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
39	Identity, Abundance, and Reactivation Kinetics of Thermophilic Fermentative Endospores in Cold Marine Sediment and Seawater. Frontiers in Microbiology, 2017, 8, 131.	3.5	29
40	Off Limits: Sulfate below the Sulfate-Methane Transition. Frontiers in Earth Science, 2016, 4, .	1.8	25
41	The Guaymas Basin Hiking Guide to Hydrothermal Mounds, Chimneys, and Microbial Mats: Complex Seafloor Expressions of Subsurface Hydrothermal Circulation. Frontiers in Microbiology, 2016, 7, 75.	3.5	82
42	Evidence for the Existence of Autotrophic Nitrate-Reducing Fe(II)-Oxidizing Bacteria in Marine Coastal Sediment. Applied and Environmental Microbiology, 2016, 82, 6120-6131.	3.1	68
43	Controls on subsurface methane fluxes and shallow gas formation in Baltic Sea sediment (Aarhus) Tj ETQq1 1 0.784314 rgBT /Overlock	3.9	57
44	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
45	Formate, acetate, and propionate as substrates for sulfate reduction in sub-arctic sediments of Southwest Greenland. Frontiers in Microbiology, 2015, 6, 846.	3.5	76
46	Ubiquitous Presence and Novel Diversity of Anaerobic Alkane Degraders in Cold Marine Sediments. Frontiers in Microbiology, 2015, 6, 1414.	3.5	30
47	Ammoniaâ€oxidizing B acteria of the N itrosospira cluster 1 dominate over ammoniaâ€oxidizing A rchaea in oligotrophic surface sediments near the S outh A tlantic G yre. Environmental Microbiology Reports, 2015, 7, 404-413.	2.4	22
48	Redox gradients at the low oxygen boundary of lakes. Aquatic Sciences, 2015, 77, 81-93.	1.5	13
49	Methanogenesis in sediments of an intertidal sand flat in the Wadden Sea. Estuarine, Coastal and Shelf Science, 2015, 164, 39-45.	2.1	4
50	Determination of dissimilatory sulfate reduction rates in marine sediment via radioactive ‹sup›35‹/sup›S tracer. Limnology and Oceanography: Methods, 2014, 12, 196-211.	2.0	75
51	Modern applications for a total sulfur reduction distillation method - whatâ€™s old is new again. Geochemical Transactions, 2014, 15, 4.	0.7	21
52	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
53	Endospore abundance and d:l-amino acid modeling of bacterial turnover in holocene marine sediment (Aarhus Bay). Geochimica Et Cosmochimica Acta, 2012, 99, 87-99.	3.9	72
54	In Situ Oxygen Dynamics in Coral-Algal Interactions. PLoS ONE, 2012, 7, e31192.	2.5	63

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55	Aerobic Microbial Respiration in 86-Million-Year-Old Deep-Sea Red Clay. Science, 2012, 336, 922-925.	12.6	190
56	Concurrent low- and high-affinity sulfate reduction kinetics in marine sediment. Geochimica Et Cosmochimica Acta, 2011, 75, 2997-3010.	3.9	61
57	Bacterial sulfur cycling shapes microbial communities in surface sediments of an ultramafic hydrothermal vent field. Environmental Microbiology, 2011, 13, 2633-2648.	3.8	51
58	Motility patterns of filamentous sulfur bacteria, Beggiatoa spp.. FEMS Microbiology Ecology, 2011, 77, 176-185.	2.7	18
59	Temperature regulation of gliding motility in filamentous sulfur bacteria, Beggiatoa spp.. FEMS Microbiology Ecology, 2010, 73, no-no.	2.7	11
60	Filamentous sulfur bacteria, Beggiatoa spp., in arctic marine sediments (Svalbard, 79Â°N). FEMS Microbiology Ecology, 2010, 73, no-no.	2.7	31
61	Oxygen penetration deep into the sediment of the South Pacific gyre. Biogeosciences, 2009, 6, 1467-1478.	3.3	58
62	Sulfide assimilation by ectosymbionts of the sessile ciliate, Zoothamnium niveum. Marine Biology, 2009, 156, 669-677.	1.5	7
63	Oxygen dynamics and transport in the Mediterranean sponge Aplysina aerophoba. Marine Biology, 2008, 153, 1257-1264.	1.5	87
64	Video-supported Analysis of Beggiatoa Filament Growth, Breakage, and Movement. Microbial Ecology, 2008, 56, 484-491.	2.8	25
65	Biogeochemistry and Community Composition of Iron- and Sulfur-Precipitating Microbial Mats at the Chefren Mud Volcano (Nile Deep Sea Fan, Eastern Mediterranean). Applied and Environmental Microbiology, 2008, 74, 3198-3215.	3.1	137
66	Tideâ€driven deep poreâ€water flow in intertidal sand flats. Limnology and Oceanography, 2008, 53, 1521-1530.	3.1	53
67	Eddy correlation flux measurements: The sediment surface area that contributes to the flux. Limnology and Oceanography, 2007, 52, 1672-1684.	3.1	118
68	Oxygen dynamics and flow patterns of Dysidea avara (Porifera: Demospongiae). Journal of the Marine Biological Association of the United Kingdom, 2007, 87, 1677-1682.	0.8	22
69	Benthic photosynthesis in submerged Wadden Sea intertidal flats. Estuarine, Coastal and Shelf Science, 2007, 71, 704-716.	2.1	75
70	Advective relief of CO₂ limitation in microphytobenthos in highly productive sandy sediments. Limnology and Oceanography, 2006, 51, 1594-1601.	3.1	60
71	The influence of topography on the functional exchange surface of marine soft sediments, assessed from sediment topography measured in situ. Limnology and Oceanography, 2005, 50, 106-112.	3.1	29
72	Wave-induced H² S flux sustains a chemoautotrophic symbiosis. Limnology and Oceanography, 2005, 50, 128-133.	3.1	21

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73	Role of pelletization in mineralization of fine-grained coastal sediments. Marine Ecology - Progress Series, 2005, 291, 23-33.	1.9	22
74	Transmission of oxygen concentration fluctuations through the diffusive boundary layer overlying aquatic sediments. Limnology and Oceanography, 2004, 49, 686-692.	3.1	34
75	Hydrodynamical impact on biogeochemical processes in aquatic sediments. Hydrobiologia, 2003, 494, 231-236.	2.0	126
76	Seasonal dynamics of benthic O₂ uptake in a semienclosed bay: Importance of diffusion and faunal activity. Limnology and Oceanography, 2003, 48, 1265-1276.	3.1	133
77	Hydrodynamical impact on biogeochemical processes in aquatic sediments. , 2003, , 231-236.		57
78	Oxygen uptake by aquatic sediments measured with a novel non-invasive eddy-correlation technique. Marine Ecology - Progress Series, 2003, 261, 75-83.	1.9	229
79	The role of smallâ€scale sediment topography for oxygen flux across the diffusive boundary layer. Limnology and Oceanography, 2002, 47, 837-847.	3.1	80
80	14 Experimental assessment of community metabolism in the subsurface. , 0, , .		1