Hans RÃ¸y

List of Publications by Year
in descending order

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80	3,640	117571	149623
papers	citations	34 h-index	56 g-index

83	83	83	3831
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Oxygen uptake by aquatic sediments measured with a novel non-invasive eddy-correlation technique. Marine Ecology - Progress Series, 2003, 261, 75-83.	0.9	229
2	Aerobic Microbial Respiration in 86-Million-Year-Old Deep-Sea Red Clay. Science, 2012, 336, 922-925.	6.0	190
3	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.	1.4	137
4	Seasonal dynamics of benthic O₂ uptake in a semienclosed bay: Importance of diffusion and faunal activity. Limnology and Oceanography, 2003, 48, 1265-1276.	1.6	133
5	Hydrodynamical impact on biogeochemical processes in aquatic sediments. Hydrobiologia, 2003, 494, 231-236.	1.0	126
6	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.	3.3	126
7	Eddy correlation flux measurements: The sediment surface area that contributes to the flux. Limnology and Oceanography, 2007, 52, 1672-1684.	1.6	118
8	Cryptic CH4 cycling in the sulfateâ€“methane transition of marine sediments apparently mediated by ANME-1 archaea. ISME Journal, 2019, 13, 250-262.	4.4	90
9	Oxygen dynamics and transport in the Mediterranean sponge Aplysina aerophoba. Marine Biology, 2008, 153, 1257-1264.	0.7	87
10	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.	1.5	82
11	The role of smallâ€scale sediment topography for oxygen flux across the diffusive boundary layer. Limnology and Oceanography, 2002, 47, 837-847.	1.6	80
12	Deep-biosphere methane production stimulated by geofluids in the Nankai accretionary complex. Science Advances, 2018, 4, eaao4631.	4.7	79
13	Formate, acetate, and propionate as substrates for sulfate reduction in sub-arctic sediments of Southwest Greenland. Frontiers in Microbiology, 2015, 6, 846.	1.5	76
14	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.	1.4	76
15	Benthic photosynthesis in submerged Wadden Sea intertidal flats. Estuarine, Coastal and Shelf Science, 2007, 71, 704-716.	0.9	75
16	Determination of dissimilatory sulfate reduction rates in marine sediment via radioactive ³⁵S tracer. Limnology and Oceanography: Methods, 2014, 12, 196-211.	1.0	75
17	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.	1.6	72
18	Evidence for the Existence of Autotrophic Nitrate-Reducing Fe(II)-Oxidizing Bacteria in Marine Coastal Sediment. Applied and Environmental Microbiology, 2016, 82, 6120-6131.	1.4	68

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19	In Situ Oxygen Dynamics in Coral-Algal Interactions. PLoS ONE, 2012, 7, e31192.	1.1	63
20	Sulfate Transporters in Dissimilatory Sulfate Reducing Microorganisms: A Comparative Genomics Analysis. Frontiers in Microbiology, 2018, 9, 309.	1.5	63
21	Concurrent low- and high-affinity sulfate reduction kinetics in marine sediment. Geochimica Et Cosmochimica Acta, 2011, 75, 2997-3010.	1.6	61
22	Microbial turnover times in the deep seabed studied by amino acid racemization modelling. Scientific Reports, 2017, 7, 5680.	1.6	61
23	Advective relief of CO₂ limitation in microphytobenthos in highly productive sandy sediments. Limnology and Oceanography, 2006, 51, 1594-1601.	1.6	60
24	Oxygen penetration deep into the sediment of the South Pacific gyre. Biogeosciences, 2009, 6, 1467-1478.	1.3	58
25	Controls on subsurface methane fluxes and shallow gas formation in Baltic Sea sediment (Aarhus) Tj ETQq1 1 0.784314 rgBT /Overlock	1.6	57
26	Hydrodynamical impact on biogeochemical processes in aquatic sediments. , 2003, , 231-236.		57
27	Organoclastic sulfate reduction in the sulfate-methane transition of marine sediments. Geochimica Et Cosmochimica Acta, 2019, 254, 231-245.	1.6	56
28	Marine Deep Biosphere Microbial Communities Assemble in Near-Surface Sediments in Aarhus Bay. Frontiers in Microbiology, 2019, 10, 758.	1.5	54
29	Tideâ€driven deep poreâ€water flow in intertidal sand flats. Limnology and Oceanography, 2008, 53, 1521-1530.	1.6	53
30	Bacterial sulfur cycling shapes microbial communities in surface sediments of an ultramafic hydrothermal vent field. Environmental Microbiology, 2011, 13, 2633-2648.	1.8	51
31	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.	1.0	46
32	The sulfur cycle below the sulfate-methane transition of marine sediments. Geochimica Et Cosmochimica Acta, 2018, 239, 74-89.	1.6	44
33	Methylotrophic methanogenesis fuels cryptic methane cycling in marine surface sediment. Limnology and Oceanography, 2018, 63, 1519-1527.	1.6	42
34	Environmental filtering determines family-level structure of sulfate-reducing microbial communities in subsurface marine sediments. ISME Journal, 2019, 13, 1920-1932.	4.4	40
35	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.	3.3	40
36	Controls on volatile fatty acid concentrations in marine sediments (Baltic Sea). Geochimica Et Cosmochimica Acta, 2019, 258, 226-241.	1.6	38

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37	Microbial Organic Matter Degradation Potential in Baltic Sea Sediments Is Influenced by Depositional Conditions and In Situ Geochemistry. Applied and Environmental Microbiology, 2019, 85, .	1.4	37
38	Transmission of oxygen concentration fluctuations through the diffusive boundary layer overlying aquatic sediments. Limnology and Oceanography, 2004, 49, 686-692.	1.6	34
39	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.	1.6	33
40	Filamentous sulfur bacteria, Beggiatoa spp., in arctic marine sediments (Svalbard, 79Â°N). FEMS Microbiology Ecology, 2010, 73, no-no.	1.3	31
41	Ubiquitous Presence and Novel Diversity of Anaerobic Alkane Degraders in Cold Marine Sediments. Frontiers in Microbiology, 2015, 6, 1414.	1.5	30
42	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.	1.6	29
43	Identity, Abundance, and Reactivation Kinetics of Thermophilic Fermentative Endospores in Cold Marine Sediment and Seawater. Frontiers in Microbiology, 2017, 8, 131.	1.5	29
44	Potentially bioavailable iron produced through benthic cycling in glaciated Arctic fjords of Svalbard. Nature Communications, 2021, 12, 1349.	5.8	26
45	Video-supported Analysis of Beggiatoa Filament Growth, Breakage, and Movement. Microbial Ecology, 2008, 56, 484-491.	1.4	25
46	Off Limits: Sulfate below the Sulfate-Methane Transition. Frontiers in Earth Science, 2016, 4, .	0.8	25
47	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, .	1.3	24
48	Kinetics of organic carbon mineralization and methane formation in marine sediments (Aarhus Bay,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.6	23
49	Oxygen dynamics and flow patterns of Dysidea avara (Porifera: Demospongiae). Journal of the Marine Biological Association of the United Kingdom, 2007, 87, 1677-1682.	0.4	22
50	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.	1.0	22
51	Reactivity of Iron Minerals in the Seabed Toward Microbial Reduction â€“ A Comparison of Different Extraction Techniques. Geomicrobiology Journal, 2020, 37, 170-189.	1.0	22
52	Role of pelletization in mineralization of fine-grained coastal sediments. Marine Ecology - Progress Series, 2005, 291, 23-33.	0.9	22
53	Wave-induced H² S flux sustains a chemoautotrophic symbiosis. Limnology and Oceanography, 2005, 50, 128-133.	1.6	21
54	Modern applications for a total sulfur reduction distillation method - whatâ€™s old is new again. Geochemical Transactions, 2014, 15, 4.	1.8	21

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55	Glacial influence on the iron and sulfur cycles in Arctic fjord sediments (Svalbard). Geochimica Et Cosmochimica Acta, 2020, 280, 423-440.	1.6	20
56	Glacial controls on redox-sensitive trace element cycling in Arctic fjord sediments (Spitsbergen,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 70	1.6	19
57	Motility patterns of filamentous sulfur bacteria, Beggiatoa spp.. FEMS Microbiology Ecology, 2011, 77, 176-185.	1.3	18
58	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.	1.6	18
59	The Polyextremophilic Bacterium Clostridium paradoxum Attains Piezophilic Traits by Modulating Its Energy Metabolism and Cell Membrane Composition. Applied and Environmental Microbiology, 2019, 85, .	1.4	18
60	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.	1.9	17
61	Optical Sensing of pH and O₂ in the Evaluation of Bioactive Self-Healing Cement. ACS Omega, 2019, 4, 20237-20243.	1.6	16
62	Glacial Runoff Promotes Deep Burial of Sulfur Cycling-Associated Microorganisms in Marine Sediments. Frontiers in Microbiology, 2019, 10, 2558.	1.5	16
63	Constraints on CaCO3 precipitation in superabsorbent polymer by aerobic bacteria. Applied Microbiology and Biotechnology, 2020, 104, 365-375.	1.7	16
64	Redox gradients at the low oxygen boundary of lakes. Aquatic Sciences, 2015, 77, 81-93.	0.6	13
65	Meltwater and seasonality influence on Subpolar Gyre circulation during the Holocene. Palaeogeography, Palaeoclimatology, Palaeoecology, 2018, 502, 104-118.	1.0	13
66	Carbon oxidation and bioirrigation in sediments along a Skagerrak-Kattegat-Belt Sea depth transect. Marine Ecology - Progress Series, 2018, 604, 33-50.	0.9	13
67	Temperature regulation of gliding motility in filamentous sulfur bacteria, Beggiatoa spp.. FEMS Microbiology Ecology, 2010, 73, no-no.	1.3	11
68	Estimating the Abundance of Endospores of Sulfate-Reducing Bacteria in Environmental Samples by Inducing Germination and Exponential Growth. Geomicrobiology Journal, 2017, 34, 338-345.	1.0	11
69	Insolation vs. meltwater control of productivity and sea surface conditions off SW Greenland during the Holocene. Boreas, 2021, 50, 631-651.	1.2	9
70	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.	1.0	8
71	Psychrophilic properties of sulfateâ€reducing bacteria in Arctic marine sediments. Limnology and Oceanography, 2021, 66, S293.	1.6	8
72	Sulfide assimilation by ectosymbionts of the sessile ciliate, Zoothamnium niveum. Marine Biology, 2009, 156, 669-677.	0.7	7

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73	Physicochemical and biological controls of sulfide accumulation in a high temperature oil reservoir. Applied Microbiology and Biotechnology, 2020, 104, 8467-8478.	1.7	7
74	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.	1.6	7
75	Understanding the isotopic composition of sedimentary sulfide: A multiple sulfur isotope diagenetic model for Aarhus Bay. Numerische Mathematik, 2022, 322, 1-27.	0.7	7
76	Methane production controls in a young thermokarst lake formed by abrupt permafrost thaw. Global Change Biology, 2022, 28, 3206-3221.	4.2	7
77	Holocene sedimentary and environmental development of Aarhus Bay, Denmark â€“ a multiâ€proxy study. Boreas, 2020, 49, 108-128.	1.2	5
78	Methanogenesis in sediments of an intertidal sand flat in the Wadden Sea. Estuarine, Coastal and Shelf Science, 2015, 164, 39-45.	0.9	4
79	Intracellular nitrate in sediments of an oxygen-deficient marine basin is linked to pelagic diatoms. FEMS Microbiology Ecology, 2018, 94, .	1.3	3
80	14 Experimental assessment of community metabolism in the subsurface. , 0, , .		1