

Frank WenzhÄjfer

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

4,206
citations

117625

34
h-index

114465

63
g-index

77
all docs

77
docs citations

77
times ranked

4527
citing authors

#	ARTICLE	IF	CITATIONS
1	Seafloor oxygen consumption fuelled by methane from cold seeps. <i>Nature Geoscience</i> , 2013, 6, 725-734.	12.9	409
2	Export of Algal Biomass from the Melting Arctic Sea Ice. <i>Science</i> , 2013, 339, 1430-1432.	12.6	383
3	Early diagenesis of organic matter from sediments of the eastern subtropical Atlantic: evidence from stable nitrogen and carbon isotopes. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 1795-1808.	3.9	317
4	High rates of microbial carbon turnover in sediments in the deepest oceanic trench on Earth. <i>Nature Geoscience</i> , 2013, 6, 284-288.	12.9	262
5	Transport and mineralization rates in North Sea sandy intertidal sediments, Sylt-Rømø Basin, Wadden Sea. <i>Limnology and Oceanography</i> , 2005, 50, 113-127.	3.1	188
6	Small-scale spatial and temporal variability in coastal benthic O ₂ dynamics: Effects of fauna activity. <i>Limnology and Oceanography</i> , 2004, 49, 1471-1481.	3.1	186
7	Benthic carbon mineralization in the Atlantic: a synthesis based on in situ data from the last decade. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2002, 49, 1255-1279.	1.4	159
8	Benthic solute exchange and carbon mineralization in two shallow subtidal sandy sediments: Effect of advective pore-water exchange. <i>Limnology and Oceanography</i> , 2007, 52, 1943-1963.	3.1	125
9	How Deep-Sea Wood Falls Sustain Chemosynthetic Life. <i>PLoS ONE</i> , 2013, 8, e53590.	2.5	113
10	Composition, Buoyancy Regulation and Fate of Ice Algal Aggregates in the Central Arctic Ocean. <i>PLoS ONE</i> , 2014, 9, e107452.	2.5	101
11	Nitrogen cycling in a deep ocean margin sediment (Sagami Bay, Japan). <i>Limnology and Oceanography</i> , 2009, 54, 723-734.	3.1	94
12	In situ microsensor studies of a shallow water hydrothermal vent at Milos, Greece. <i>Marine Chemistry</i> , 2000, 69, 43-54.	2.3	87
13	Quantification of denitrification in permeable sediments: Insights from a two-dimensional simulation analysis and experimental data. <i>Limnology and Oceanography: Methods</i> , 2006, 4, 294-307.	2.0	77
14	Distribution of oxygen in surface sediments from central Sagami Bay, Japan: In situ measurements by microelectrodes and planar optodes. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2005, 52, 1974-1987.	1.4	71
15	Spatial scales of bacterial community diversity at cold seeps (Eastern Mediterranean Sea). <i>ISME Journal</i> , 2015, 9, 1306-1318.	9.8	69
16	Methane fluxes and carbonate deposits at a cold seep area of the Central Nile Deep Sea Fan, Eastern Mediterranean Sea. <i>Marine Geology</i> , 2014, 347, 27-42.	2.1	65
17	Effects of a deep-sea mining experiment on seafloor microbial communities and functions after 26 years. <i>Science Advances</i> , 2020, 6, eaaz5922.	10.3	64
18	In situ microscale variation in distribution and consumption of O ₂ : A case study from a deep ocean margin sediment (Sagami Bay, Japan). <i>Limnology and Oceanography</i> , 2009, 54, 1-12.	3.1	62

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19	Recent sediment dynamics in hadal trenches: Evidence for the influence of higher-frequency (tidal,) Tj ETQq1 1 0.784314 rgBT /Overl	1.4	62
20	Deep penetrating benthic oxygen profiles measured in situ by oxygen optodes. Deep-Sea Research Part I: Oceanographic Research Papers, 2001, 48, 1741-1755.	1.4	56
21	Effects of transient bottom water currents and oxygen concentrations on benthic exchange rates as assessed by eddy correlation measurements. Journal of Geophysical Research: Oceans, 2013, 118, 1157-1169.	2.6	55
22	Benthic Carbon Mineralization in Hadal Trenches: Insights From In Situ Determination of Benthic Oxygen Consumption. Geophysical Research Letters, 2018, 45, 2752-2760.	4.0	54
23	Spatial distribution and activity of viruses in the deep-sea sediments of Sagami Bay, Japan. Deep-Sea Research Part I: Oceanographic Research Papers, 2006, 53, 1-13.	1.4	52
24	Comparison between infaunal communities of the deep floor and edge of the Tonga Trench: Possible effects of differences in organic matter supply. Deep-Sea Research Part I: Oceanographic Research Papers, 2016, 116, 264-275.	1.4	52
25	Bacterial sulfur cycling shapes microbial communities in surface sediments of an ultramafic hydrothermal vent field. Environmental Microbiology, 2011, 13, 2633-2648.	3.8	51
26	Eruption of a deep-sea mud volcano triggers rapid sediment movement. Nature Communications, 2014, 5, 5385.	12.8	50
27	The Dynamics of Plant-Mediated Sediment Oxygenation in <i>Spartina anglica</i> Rhizospheres – a Planar Optode Study. Estuaries and Coasts, 2015, 38, 951-963.	2.2	50
28	Sediment oxygen consumption: Role in the global marine carbon cycle. Earth-Science Reviews, 2022, 228, 103987.	9.1	50
29	Hadal trenches are dynamic hotspots for early diagenesis in the deep sea. Communications Earth & Environment, 2021, 2, .	6.8	49
30	Oxygen optodes as fast sensors for eddy correlation measurements in aquatic systems. Limnology and Oceanography: Methods, 2012, 10, 304-316.	2.0	44
31	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
32	Temporal and Spatial Variations of Bacterial and Faunal Communities Associated with Deep-Sea Wood Falls. PLoS ONE, 2017, 12, e0169906.	2.5	41
33	Distribution of algal aggregates under summer sea ice in the Central Arctic. Polar Biology, 2015, 38, 719-731.	1.2	39
34	An Assessment of the Precision and Confidence of Aquatic Eddy Correlation Measurements. Journal of Atmospheric and Oceanic Technology, 2015, 32, 642-655.	1.3	35
35	Assessing benthic oxygen fluxes in oligotrophic deep sea sediments (HAUSGARTEN observatory). Deep-Sea Research Part I: Oceanographic Research Papers, 2016, 111, 1-10.	1.4	32
36	Survey of sediment oxygenation in rhizospheres of the saltmarsh grass - <i>Spartina anglica</i> . Science of the Total Environment, 2017, 589, 191-199.	8.0	31

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37	Sea-ice derived meltwater stratification slows the biological carbon pump: results from continuous observations. <i>Nature Communications</i> , 2021, 12, 7309.	12.8	31
38	A novel, mat-forming <i>Thiomargarita</i> population associated with a sulfidic fluid flow from a deep-sea mud volcano. <i>Environmental Microbiology</i> , 2011, 13, 495-505.	3.8	30
39	Microbial community structure in hadal sediments: high similarity along trench axes and strong changes along redox gradients. <i>ISME Journal</i> , 2021, 15, 3455-3467.	9.8	29
40	Biogeochemical impact of submarine ground water discharge on coastal surface sands of the southern Baltic Sea. <i>Estuarine, Coastal and Shelf Science</i> , 2017, 189, 131-142.	2.1	27
41	CO ₂ leakage alters biogeochemical and ecological functions of submarine sands. <i>Science Advances</i> , 2018, 4, eaao2040.	10.3	27
42	A vast icefish breeding colony discovered in the Antarctic. <i>Current Biology</i> , 2022, 32, 842-850.e4.	3.9	27
43	Methane and sulfide fluxes in permanent anoxia: In situ studies at the Dvurechenskii mud volcano (Sorokin Trough, Black Sea). <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 5002-5018.	3.9	26
44	The contribution of microbial communities in polymetallic nodules to the diversity of the deep-sea microbiome of the Peru Basin (4130–4198 m depth). <i>Biogeosciences</i> , 2020, 17, 3203-3222.	3.3	26
45	High mercury accumulation in deep-ocean hadal sediments. <i>Scientific Reports</i> , 2021, 11, 10970.	3.3	24
46	Limitations of microbial hydrocarbon degradation at the Amon mud volcano (Nile deep-sea fan). <i>Biogeosciences</i> , 2013, 10, 3269-3283.	3.3	22
47	Anammox bacteria drive fixed nitrogen loss in hadal trench sediments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	20
48	Deep-sea benthic communities and oxygen fluxes in the Arctic Fram Strait controlled by sea-ice cover and water depth. <i>Biogeosciences</i> , 2018, 15, 4849-4869.	3.3	19
49	A novel planar optode setup for concurrent oxygen and light field imaging: Application to a benthic phototrophic community. <i>Limnology and Oceanography: Methods</i> , 2010, 8, 254-268.	2.0	18
50	In situ measurements of hydrogen sulfide, oxygen, and temperature in diffuse fluids of an ultramafic-hosted hydrothermal vent field (Logatchev, 14°45'N, Mid-Atlantic Ridge): Implications for chemosymbiotic bathymodiolin mussels. <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, n/a-n/a.	2.5	18
51	Glycerol dialkyl glycerol tetraethers in surface sediments from three Pacific trenches: Distribution, source and environmental implications. <i>Organic Geochemistry</i> , 2020, 147, 104079.	1.8	18
52	Spatial variability of prokaryotic and viral abundances in the Kermadec and Atacama Trench regions. <i>Limnology and Oceanography</i> , 2021, 66, 2095-2109.	3.1	18
53	Distribution, Source, and Burial of Sedimentary Organic Carbon in Kermadec and Atacama Trenches. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2020JG006189.	3.0	16
54	Spatial variability of biogeochemistry in shallow coastal benthic communities of Potter Cove (Antarctica) and the impact of a melting glacier. <i>PLoS ONE</i> , 2018, 13, e0207917.	2.5	14

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55	The hadal zone is an important and heterogeneous sink of black carbon in the ocean. <i>Communications Earth & Environment</i> , 2022, 3, .	6.8	14
56	Carbon and nitrogen turnover in the Arctic deep sea: in situ benthic community response to diatom and coccolithophorid phytodetritus. <i>Biogeosciences</i> , 2018, 15, 6537-6557.	3.3	13
57	Glacial melt disturbance shifts community metabolism of an Antarctic seafloor ecosystem from net autotrophy to heterotrophy. <i>Communications Biology</i> , 2021, 4, 148.	4.4	13
58	Implications of Glacial Melt-Related Processes on the Potential Primary Production of a Microphytobenthic Community in Potter Cove (Antarctica). <i>Frontiers in Marine Science</i> , 2019, 6, .	2.5	12
59	In situ macrofaunal respiration rates and their importance for benthic carbon mineralization on the northwestern Black Sea shelf. <i>Ophelia</i> , 2002, 56, 87-100.	0.3	10
60	Oxygen fluxes beneath Arctic land-fast ice and pack ice: towards estimates of ice productivity. <i>Polar Biology</i> , 2018, 41, 2119-2134.	1.2	10
61	Plankton respiration in the Atacama Trench region: Implications for particulate organic carbon flux into the hadal realm. <i>Limnology and Oceanography</i> , 2021, 66, 3134-3148.	3.1	10
62	<i>Eurythenes atacamensis</i> sp. nov. (Crustacea: Amphipoda) exhibits ontogenetic vertical stratification across abyssal and hadal depths in the Atacama Trench, eastern South Pacific Ocean. <i>Marine Biodiversity</i> , 2021, 51, 51.	1.0	9
63	Depression chains in seafloor of contrasting morphology, Atacama Trench margin: a comment on Marsh <i>et al.</i> (2018). <i>Royal Society Open Science</i> , 2019, 6, 182053.	2.4	7
64	PlasPI marine cameras: Open-source, affordable camera systems for time series marine studies. <i>HardwareX</i> , 2020, 7, e00102.	2.2	6
65	Benthic Carbon Mineralization in Sediments of Gotland Basin, Baltic Sea, Measured In Situ with Benthic Landers. <i>ACS Symposium Series</i> , 2002, , 162-185.	0.5	3
66	Variability in Benthic Ecosystem Functioning in Arctic Shelf and Deep-Sea Sediments: Assessments by Benthic Oxygen Uptake Rates and Environmental Drivers. <i>Frontiers in Marine Science</i> , 2020, 7, .	2.5	1