

# Gesine Mollenhauer

## List of Publications by Citations

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116  
papers

3,565  
citations

33  
h-index

56  
g-index

171  
ext. papers

4,230  
ext. citations

6.2  
avg, IF

5.13  
L-index

#	Paper	IF	Citations
116	Selective preservation of organic matter in marine environments; processes and impact on the sedimentary record. <i>Biogeosciences</i> , <b>2010</b> , 7, 483-511	4.6	257
115	Increase in African dust flux at the onset of commercial agriculture in the Sahel region. <i>Nature</i> , <b>2010</b> , 466, 226-8	50.4	206
114	Forcing of wet phases in southeast Africa over the past 17,000 years. <i>Nature</i> , <b>2011</b> , 480, 509-12	50.4	201
113	Eastern Pacific cooling and Atlantic overturning circulation during the last deglaciation. <i>Nature</i> , <b>2006</b> , 443, 846-9	50.4	125
112	Asynchronous alkenone and foraminifera records from the Benguela Upwelling System. <i>Geochimica Et Cosmochimica Acta</i> , <b>2003</b> , 67, 2157-2171	5.5	121
111	Sea surface temperature variability and sea-ice extent in the subarctic northwest Pacific during the past 15,000 years. <i>Paleoceanography</i> , <b>2012</b> , 27, n/a-n/a		104
110	Origins of archaeal tetraether lipids in sediments: Insights from radiocarbon analysis. <i>Geochimica Et Cosmochimica Acta</i> , <b>2008</b> , 72, 4577-4594	5.5	103
109	Long chain 1,13- and 1,15-diols as a potential proxy for palaeotemperature reconstruction. <i>Geochimica Et Cosmochimica Acta</i> , <b>2012</b> , 84, 204-216	5.5	90
108	Orbital- and millennial-scale changes in the hydrologic cycle and vegetation in the western African Sahel: insights from individual plant wax $\delta D$ and $\delta^{13}C$ . <i>Quaternary Science Reviews</i> , <b>2010</b> , 29, 2996-3005	3.9	89
107	Core-top calibration of the lipid-based U37K <sup>2</sup> and TEX86 temperature proxies on the southern Italian shelf (SW Adriatic Sea, Gulf of Taranto). <i>Earth and Planetary Science Letters</i> , <b>2010</b> , 300, 112-124	5.3	86
106	An evaluation of $^{14}C$ age relationships between co-occurring foraminifera, alkenones, and total organic carbon in continental margin sediments. <i>Paleoceanography</i> , <b>2005</b> , 20, n/a-n/a		86
105	Aging of marine organic matter during cross-shelf lateral transport in the Benguela upwelling system revealed by compound-specific radiocarbon dating. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2007</b> , 8, n/a-n/a	3.6	84
104	Controls on the age of vascular plant biomarkers in Black Sea sediments. <i>Geochimica Et Cosmochimica Acta</i> , <b>2010</b> , 74, 7031-7047	5.5	83
103	Timing and structure of Mega-SACZ events during Heinrich Stadial 1. <i>Geophysical Research Letters</i> , <b>2015</b> , 42, 5477	4.9	70
102	Miocene to Pliocene development of surface and subsurface temperatures in the Benguela Current system. <i>Paleoceanography</i> , <b>2011</b> , 26, n/a-n/a		70
101	Diagenetic and sedimentological controls on the composition of organic matter preserved in California Borderland Basin sediments. <i>Limnology and Oceanography</i> , <b>2007</b> , 52, 558-576	4.8	68
100	Glacial/interglacial variability in the Benguela upwelling system: Spatial distribution and budgets of organic carbon accumulation. <i>Global Biogeochemical Cycles</i> , <b>2002</b> , 16, 81-1-81-15	5.9	64

99	Appraisal of TEX86 and . <i>Geochimica Et Cosmochimica Acta</i> , <b>2014</b> , 131, 213-226	5.5	63
98	An interlaboratory study of TEX86 and BIT analysis of sediments, extracts, and standard mixtures. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2013</b> , 14, 5263-5285	3.6	62
97	Millennial-scale sea surface temperature and Patagonian Ice Sheet changes off southernmost Chile (53°S) over the past ~60 kyr. <i>Paleoceanography</i> , <b>2011</b> , 26, n/a-n/a		54
96	A radiocarbon-based assessment of the preservation characteristics of crenarchaeol and alkenones from continental margin sediments. <i>Organic Geochemistry</i> , <b>2008</b> , 39, 1039-1045	3.1	51
95	Distribution of intact and core tetraether lipids in water column profiles of suspended particulate matter off Cape Blanc, NW Africa. <i>Organic Geochemistry</i> , <b>2014</b> , 72, 1-13	3.1	48
94	Miocene to Pliocene changes in South African hydrology and vegetation in relation to the expansion of C4 plants. <i>Earth and Planetary Science Letters</i> , <b>2013</b> , 375, 408-417	5.3	47
93	Sea surface temperature variability in the Pacific sector of the Southern Ocean over the past 700 kyr. <i>Paleoceanography</i> , <b>2012</b> , 27,		45
92	Decoupling of bio- and geohopanoids in sediments of the Benguela Upwelling System (BUS). <i>Organic Geochemistry</i> , <b>2010</b> , 41, 1119-1129	3.1	45
91	Organic carbon accumulation in the South Atlantic Ocean: its modern, mid-Holocene and last glacial distribution. <i>Global and Planetary Change</i> , <b>2004</b> , 40, 249-266	4.2	45
90	On the sedimentological origin of down-core variations of bulk sedimentary nitrogen isotope ratios. <i>Paleoceanography</i> , <b>2005</b> , 20, n/a-n/a		43
89	Rapid lateral particle transport in the Argentine Basin: Molecular 14C and 230Thxs evidence. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2006</b> , 53, 1224-1243	2.5	40
88	Fractionation of 230Th, 231Pa, and 10Be induced by particle size and composition within an opal-rich sediment of the Atlantic Southern Ocean. <i>Geochimica Et Cosmochimica Acta</i> , <b>2011</b> , 75, 6971-6987	5.5	38
87	Stratification of archaeal membrane lipids in the ocean and implications for adaptation and chemotaxonomy of planktonic archaea. <i>Environmental Microbiology</i> , <b>2016</b> , 18, 4324-4336	5.2	38
86	Evaluation of long chain 1,14-alkyl diols in marine sediments as indicators for upwelling and temperature. <i>Organic Geochemistry</i> , <b>2014</b> , 76, 39-47	3.1	37
85	Consistently dated Atlantic sediment cores over the last 40 thousand years. <i>Scientific Data</i> , <b>2019</b> , 6, 165 8.2		33
84	Grain size effects on 230Thxs inventories in opal-rich and carbonate-rich marine sediments. <i>Earth and Planetary Science Letters</i> , <b>2010</b> , 294, 131-142	5.3	33
83	Distribution of polar membrane lipids in permafrost soils and sediments of a small high Arctic catchment. <i>Organic Geochemistry</i> , <b>2010</b> , 41, 1130-1145	3.1	32
82	Thermal evolution of the western South Atlantic and the adjacent continent during Termination 1. <i>Climate of the Past</i> , <b>2015</b> , 11, 915-929	3.9	31

81	Palynological evidence for climatic and oceanic variability off NW Africa during the late Holocene. <i>Quaternary Research</i> , <b>2009</b> , 72, 188-197	1.9	31
80	Deglacial mobilization of pre-aged terrestrial carbon from degrading permafrost. <i>Nature Communications</i> , <b>2018</b> , 9, 3666	17.4	30
79	Timescales of lateral sediment transport in the Panama Basin as revealed by radiocarbon ages of alkenones, total organic carbon and foraminifera. <i>Earth and Planetary Science Letters</i> , <b>2010</b> , 290, 340-350	5.3	29
78	Origin, transport and deposition of leaf-wax biomarkers in the Amazon Basin and the adjacent Atlantic. <i>Geochimica Et Cosmochimica Acta</i> , <b>2016</b> , 192, 149-165	5.5	29
77	Boundary scavenging at the East Atlantic margin does not negate use of <sup>231</sup> Pa/ <sup>230</sup> Th to trace Atlantic overturning. <i>Earth and Planetary Science Letters</i> , <b>2012</b> , 333-334, 317-331	5.3	28
76	Extratropical forcing of Sahel aridity during Heinrich stadials. <i>Geophysical Research Letters</i> , <b>2009</b> , 36,	4.9	28
75	Oscillations of the siliceous imprint in the central Benguela Upwelling System from MIS 3 through to the early Holocene: the influence of the Southern Ocean. <i>Journal of Quaternary Science</i> , <b>2003</b> , 18, 733-743	2.3	27
74	Particulate Organic Carbon Deconstructed: Molecular and Chemical Composition of Particulate Organic Carbon in the Ocean. <i>Frontiers in Marine Science</i> , <b>2020</b> , 7,	4.5	24
73	Organic-geochemical proxies of sea surface temperature in surface sediments of the tropical eastern Indian Ocean. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2014</b> , 88, 17-29	2.5	24
72	Characterization of particulate organic matter in the Lena River delta and adjacent nearshore zone, NE Siberia [Part 2: Lignin-derived phenol compositions. <i>Biogeosciences</i> , <b>2015</b> , 12, 2261-2283	4.6	24
71	Holocene sea-surface temperature variability in the Chilean fjord region. <i>Quaternary Research</i> , <b>2014</b> , 82, 342-353	1.9	22
70	Microbial biomarkers support organic carbon transport from methane-rich Amazon wetlands to the shelf and deep sea fan during recent and glacial climate conditions. <i>Organic Geochemistry</i> , <b>2014</b> , 67, 85-98	3.1	22
69	A four-year record of UK <sup>37</sup> - and TEX <sup>86</sup> -derived sea surface temperature estimates from sinking particles in the filamentous upwelling region off Cape Blanc, Mauritania. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2015</b> , 97, 67-79	2.5	22
68	Core top TEX <sup>86</sup> values in the south and equatorial Pacific. <i>Organic Geochemistry</i> , <b>2011</b> , 42, 94-99	3.1	22
67	Past climate and continentality inferred from ice wedges at Batagay megaslump in the Northern Hemisphere's most continental region, Yana Highlands, interior Yakutia. <i>Climate of the Past</i> , <b>2019</b> , 15, 1443-1461	3.9	21
66	Southern Hemisphere anticyclonic circulation drives oceanic and climatic conditions in late Holocene southernmost Africa. <i>Climate of the Past</i> , <b>2017</b> , 13, 649-665	3.9	21
65	Using distributions and stable isotopes of n-alkanes to disentangle organic matter contributions to sediments of Laguna Potrok Aike, Argentina. <i>Organic Geochemistry</i> , <b>2016</b> , 102, 110-119	3.1	18
64	Increased Amazon freshwater discharge during late Heinrich Stadial 1. <i>Quaternary Science Reviews</i> , <b>2018</b> , 181, 144-155	3.9	17

63	Glacial-to-Holocene evolution of sea surface temperature and surface circulation in the subarctic northwest Pacific and the Western Bering Sea. <i>Paleoceanography</i> , <b>2016</b> , 31, 916-927		16
62	Compound-specific radiocarbon analysis [Analytical challenges and applications. <i>IOP Conference Series: Earth and Environmental Science</i> , <b>2009</b> , 5, 012006	0.3	16
61	The roles of climate and human land-use in the late Holocene rainforest crisis of Central Africa. <i>Earth and Planetary Science Letters</i> , <b>2019</b> , 505, 30-41	5.3	16
60	Lipid biomarkers in surface sediments from the Gulf of Genoa, Ligurian sea (NW Mediterranean sea) and their potential for the reconstruction of palaeo-environments. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2014</b> , 89, 68-83	2.5	15
59	Radiocarbon Dating of Alkenones from Marine Sediments: II. Assessment of Carbon Process Blanks. <i>Radiocarbon</i> , <b>2005</b> , 47, 413-424	4.6	15
58	Implications for chloro- and pheopigment synthesis and preservation from combined compound-specific $\delta^{13}C$ , $\delta^{15}N$ , and $\delta^{14}C$ analysis. <i>Biogeosciences</i> , <b>2010</b> , 7, 4105-4118	4.6	15
57	Burial and Origin of Permafrost-Derived Carbon in the Nearshore Zone of the Southern Canadian Beaufort Sea. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2019GL085897	4.9	15
56	Radiocarbon and $^{230}Th$ data reveal rapid redistribution and temporal changes in sediment focussing at a North Atlantic drift. <i>Earth and Planetary Science Letters</i> , <b>2011</b> , 301, 373-381	5.3	14
55	A biomarker perspective on dust, productivity, and sea surface temperature in the Pacific sector of the Southern Ocean. <i>Geochimica Et Cosmochimica Acta</i> , <b>2017</b> , 204, 120-139	5.5	13
54	Summer temperature evolution on the Kamchatka Peninsula, Russian Far East, during the past 20 000 years. <i>Climate of the Past</i> , <b>2017</b> , 13, 359-377	3.9	13
53	Long-chain diols in rivers: distribution and potential biological sources. <i>Biogeosciences</i> , <b>2018</b> , 15, 4147-4166	4.6	13
52	Characterisation of bacterial populations in Arctic permafrost soils using bacteriohopanepolyols. <i>Organic Geochemistry</i> , <b>2015</b> , 88, 1-16	3.1	12
51	Characterization of particulate organic matter in the Lena River delta and adjacent nearshore zone, NE Siberia [Part I: Radiocarbon inventories. <i>Biogeosciences</i> , <b>2015</b> , 12, 3769-3788	4.6	12
50	Origin and processing of terrestrial organic carbon in the Amazon system: lignin phenols in river, shelf, and fan sediments. <i>Biogeosciences</i> , <b>2017</b> , 14, 2495-2512	4.6	11
49	Permafrost-carbon mobilization in Beringia caused by deglacial meltwater runoff, sea-level rise and warming. <i>Environmental Research Letters</i> , <b>2019</b> , 14, 085003	6.2	10
48	Seasonality of archaeal lipid flux and GDGT-based thermometry in sinking particles of high-latitude oceans: Fram Strait (79°N) and Antarctic Polar Front (50°S). <i>Biogeosciences</i> , <b>2019</b> , 16, 2247-2268	4.6	10
47	Concentrations and abundance ratios of long-chain alkenones and glycerol dialkyl glycerol tetraethers in sinking particles south of Java. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , <b>2016</b> , 112, 14-24	2.5	10
46	Radiocarbon Evidence for the Contribution of the Southern Indian Ocean to the Evolution of Atmospheric CO <sub>2</sub> Over the Last 32,000 Years. <i>Paleoceanography and Paleoclimatology</i> , <b>2020</b> , 35, e2019PA003733	2.3	10

45	Late Quaternary glacier and sea-ice history of northern Wijdefjorden, Svalbard. <i>Boreas</i> , <b>2020</b> , 49, 417-437.	4.4	9
44	Highly branched isoprenoids for Southern Ocean sea ice reconstructions: a pilot study from the Western Antarctic Peninsula. <i>Biogeosciences</i> , <b>2019</b> , 16, 2961-2981	4.6	9
43	Changes in the Dust-Influenced Biological Carbon Pump in the Canary Current System: Implications From a Coastal and an Offshore Sediment Trap Record Off Cape Blanc, Mauritania. <i>Global Biogeochemical Cycles</i> , <b>2019</b> , 33, 1100-1128	5.9	9
42	Dispersal and aging of terrigenous organic matter in the Pearl River Estuary and the northern South China Sea Shelf. <i>Geochimica Et Cosmochimica Acta</i> , <b>2020</b> , 282, 324-339	5.5	9
41	Standard operation procedures and performance of the MICADAS radiocarbon laboratory at Alfred Wegener Institute (AWI), Germany. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2021</b> , 496, 45-51	1.2	9
40	Bathypelagic particle flux signatures from a suboxic eddy in the oligotrophic tropical North Atlantic: production, sedimentation and preservation. <i>Biogeosciences</i> , <b>2016</b> , 13, 3203-3223	4.6	8
39	Glycerol dialkyl glycerol tetraethers (GDGTs) in high latitude Siberian permafrost: Diversity, environmental controls, and implications for proxy applications. <i>Organic Geochemistry</i> , <b>2019</b> , 136, 103888	3.1	8
38	Factors influencing $^{14}\text{C}$ concentrations of algal and archaeal lipids and their associated sea surface temperature proxies in the Black Sea. <i>Geochimica Et Cosmochimica Acta</i> , <b>2016</b> , 188, 35-57	5.5	6
37	Comparison of the $\text{U}_{37}$ , $\text{K}'$ , LDI, $\text{TEX}_{86}$ , $\text{H}'$ , and RI-OH temperature proxies in sediments from the northern shelf of the South China Sea. <i>Biogeosciences</i> , <b>2020</b> , 17, 4489-4508	4.6	6
36	The cryostratigraphy of the Yedomia cliff of Sobo-Sise Island (Lena delta) reveals permafrost dynamics in the central Laptev Sea coastal region during the last 52 kyr. <i>Cryosphere</i> , <b>2020</b> , 14, 4525-4551	5.5	6
35	$^{14}\text{C}$ Blank Assessment in Small-Scale Compound-Specific Radiocarbon Analysis of Lipid Biomarkers and Lignin Phenols. <i>Radiocarbon</i> , <b>2020</b> , 62, 207-218	4.6	6
34	On the application of alkenone- and GDGT-based temperature proxies in the south-eastern Brazilian continental margin. <i>Organic Geochemistry</i> , <b>2018</b> , 126, 43-56	3.1	6
33	Multi-proxy reconstruction of sea surface and subsurface temperatures in the western South Atlantic over the last ~75 kyr. <i>Quaternary Science Reviews</i> , <b>2019</b> , 215, 22-34	3.9	5
32	Thermal response of the western tropical Atlantic to slowdown of the Atlantic Meridional Overturning Circulation. <i>Earth and Planetary Science Letters</i> , <b>2019</b> , 519, 120-129	5.3	5
31	$\text{TEX}_{86}$ in sinking particles in three eastern Atlantic upwelling regimes. <i>Organic Geochemistry</i> , <b>2018</b> , 124, 151-163	3.1	5
30	Seasonal nitrogen fluxes of the Lena River Delta. <i>Ambio</i> , <b>2022</b> , 51, 423-438	6.5	5
29	Indication of Holocene sea-level stability in the southern Laptev Sea recorded by beach ridges in north-east Siberia, Russia. <i>Polar Research</i> , <b>2019</b> , 38,	2	5
28	Sea ice dynamics in the Bransfield Strait, Antarctic Peninsula, during the past 240 years: a multi-proxy intercomparison study. <i>Climate of the Past</i> , <b>2020</b> , 16, 2459-2483	3.9	5

27	Northeast Siberian Permafrost Ice-Wedge Stable Isotopes Depict Pronounced Last Glacial Maximum Winter Cooling. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2020GL092087	4.9	5
26	The nature, timescale, and efficiency of riverine export of terrestrial organic carbon in the (sub)tropics: Insights at the molecular level from the Pearl River and adjacent coastal sea. <i>Earth and Planetary Science Letters</i> , <b>2021</b> , 565, 116934	5.3	5
25	Branched GDGTs as Proxies in Surface Sediments From the South-Eastern Brazilian Continental Margin. <i>Frontiers in Earth Science</i> , <b>2019</b> , 7,	3.5	5
24	Compound-Specific Radiocarbon Measurements <b>2019</b> , 235-244		5
23	Estimating Bioturbation From Replicated Small-Sample Radiocarbon Ages. <i>Paleoceanography and Paleoclimatology</i> , <b>2021</b> , 36, e2020PA004142	3.3	5
22	Deglacial to Holocene variability in surface water characteristics and major floods in the Beaufort Sea. <i>Communications Earth &amp; Environment</i> , <b>2020</b> , 1,	6.1	4
21	Permafrost Organic Carbon Turnover and Export Into a High-Arctic Fjord: A Case Study From Svalbard Using Compound-specific <sup>14</sup> C Analysis. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2021</b> , 126, e2020JG006008	3.7	4
20	Application of self-absorption correction method in gamma spectroscopy for <sup>210</sup> Pb and <sup>137</sup> Cs sediment chronology on the continental slope off NW Africa. <i>Radioprotection</i> , <b>2009</b> , 44, 457-461	1.1	3
19	Rapid Atlantification along the Fram Strait at the beginning of the 20th century. <i>Science Advances</i> , <b>2021</b> , 7, eabj2946	14.3	3
18	Degrading permafrost river catchments and their impact on Arctic Ocean nearshore processes. <i>Ambio</i> , <b>2021</b> , 51, 439	6.5	3
17	Characterization of particulate organic matter in the Lena River Delta and adjacent nearshore zone, NE Siberia [Part 1: Lignin-derived phenol compositions		3
16	Characterization of particulate organic matter in the Lena River Delta and adjacent nearshore zone, NE Siberia [Part 2: Radiocarbon inventories		3
15	Bathypelagic particle flux signatures from a suboxic eddy in the oligotrophic tropical North Atlantic: production, sedimentation and preservation		3
14	Implications for chloro- and pheopigment synthesis and preservation from combined compound-specific <sup>13</sup> C, <sup>15</sup> N, and <sup>14</sup> C analysis		3
13	Multi-proxy reconstruction of terrigenous input and sea-surface temperatures in the eastern Gulf of Guinea over the last ~ 35 ka. <i>Marine Geology</i> , <b>2012</b> , 319-322, 35-46	3.3	2
12	Middle and Late Pleistocene climate and continentality inferred from ice wedges at Batagay megaslump in the Northern Hemisphere—most continental region, Yana Highlands, interior Yakutia		2
11	Glacial to deglacial reservoir ages of surface waters in the southern South Pacific		2
10	Microbial communities in the nepheloid layers and hypoxic zones of the Canary Current upwelling system. <i>MicrobiologyOpen</i> , <b>2019</b> , 8, e00705	3.4	2

9	Cluster analysis for time series based on organic geochemical proxies. <i>Organic Geochemistry</i> , <b>2020</b> , 145, 104038	3.1	1
8	Giant sponge grounds of Central Arctic seamounts are associated with extinct seep life.. <i>Nature Communications</i> , <b>2022</b> , 13, 638	17.4	1
7	Selective preservation of organic matter in marine environments <input type="checkbox"/> Processes and impact on the fossil record		1
6	Thermal evolution of the western South Atlantic and the adjacent continent during Termination 1		1
5	Controls on the age of plant waxes in marine sediments <input type="checkbox"/> A global synthesis. <i>Organic Geochemistry</i> , <b>2021</b> , 157, 104259	3.1	1
4	MARINE ORGANIC CARBON AND RADIOCARBON <input type="checkbox"/> PRESENT AND FUTURE CHALLENGES. <i>Radiocarbon</i> , 1-17	4.6	0
3	Evaluation of lipid biomarkers as proxies for sea ice and ocean temperatures along the Antarctic continental margin. <i>Climate of the Past</i> , <b>2021</b> , 17, 2305-2326	3.9	0
2	Performance of temperature and productivity proxies based on long-chain alkane-1, mid-chain diols at test: a 5-year sediment trap record from the Mauritanian upwelling. <i>Biogeosciences</i> , <b>2022</b> , 19, 1587-1610	4.6	0
1	Organic matter characteristics of a rapidly eroding permafrost cliff in NE Siberia (Lena Delta, Laptev Sea region). <i>Biogeosciences</i> , <b>2022</b> , 19, 2079-2094	4.6	0