

# Gernot Nehrke

## List of Publications by Year in descending order

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79  
papers

3,682  
citations

117625

34  
h-index

144013

57  
g-index

92  
all docs

92  
docs citations

92  
times ranked

4284  
citing authors

#	ARTICLE	IF	CITATIONS
1	Strain-specific responses of <i>Emiliana huxleyi</i> to changing seawater carbonate chemistry. <i>Biogeosciences</i> , 2009, 6, 2637-2646.	3.3	325
2	Calcium carbonate as ikaite crystals in Antarctic sea ice. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	204
3	Dependence of calcite growth rate and Sr partitioning on solution stoichiometry: Non-Kossel crystal growth. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 2240-2249.	3.9	140
4	Calcite growth kinetics: Modeling the effect of solution stoichiometry. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 77, 121-134.	3.9	121
5	A new model for biomineralization and trace-element signatures of Foraminifera tests. <i>Biogeosciences</i> , 2013, 10, 6759-6767.	3.3	118
6	Impact of seawater $p\text{CO}_2$ on calcification and Mg/Ca and Sr/Ca ratios in benthic foraminifera calcite: results from culturing experiments with <i>Ammonia tepida</i> . <i>Biogeosciences</i> , 2010, 7, 81-93.	3.3	114
7	The impact of salinity on the Mg/Ca and Sr/Ca ratio in the benthic foraminifera <i>Ammonia tepida</i> : Results from culture experiments. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 928-940.	3.9	106
8	Brief Communication: Ikaite ( $\text{CaCO}_3 \cdot 6\text{H}_2\text{O}$ ) discovered in Arctic sea ice. <i>Cryosphere</i> , 2010, 4, 227-230.	3.9	99
9	The winter pack-ice zone provides a sheltered but food-poor habitat for larval Antarctic krill. <i>Nature Ecology and Evolution</i> , 2017, 1, 1853-1861.	7.8	96
10	Cellular calcium pathways and isotope fractionation in <i>Emiliana huxleyi</i> . <i>Geology</i> , 2006, 34, 625.	4.4	91
11	Evidence for methane production by the marine algae <i>Emiliana huxleyi</i> . <i>Biogeosciences</i> , 2016, 13, 3163-3174.	3.3	89
12	Coccolith strontium to calcium ratios in <i>Emiliana huxleyi</i> : The dependence on seawater strontium and calcium concentrations. <i>Limnology and Oceanography</i> , 2006, 51, 310-320.	3.1	87
13	Heavy metal incorporation in foraminiferal calcite: results from multi-element enrichment culture experiments with <i>Ammonia tepida</i> . <i>Biogeosciences</i> , 2010, 7, 2339-2350.	3.3	76
14	Framboidal vaterite aggregates and their transformation into calcite: A morphological study. <i>Journal of Crystal Growth</i> , 2006, 287, 528-530.	1.5	73
15	Coexistence of three calcium carbonate polymorphs in the shell of the Antarctic clam <i>Laternula elliptica</i> . <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	2.5	72
16	First estimates of the contribution of $\text{CaCO}_3$ precipitation to the release of $\text{CO}_2$ to the atmosphere during young sea ice growth. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 244-255.	2.6	69
17	Temperate rainforests near the South Pole during peak Cretaceous warmth. <i>Nature</i> , 2020, 580, 81-86.	27.8	69
18	Effect of glacial drainage water on the $\text{CO}_2$ system and ocean acidification state in an Arctic tidewater glacier fjord during two contrasting years. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 2413-2429.	2.6	67

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19	Physiological controls on seawater uptake and calcification in the benthic foraminifer <i>Ammonia tepida</i> . <i>Biogeosciences</i> , 2009, 6, 2669-2675.	3.3	61
20	Quantification of mercury in soils and sediments - acid digestion versus pyrolysis. <i>Fresenius' Journal of Analytical Chemistry</i> , 1997, 358, 446-452.	1.5	60
21	Calcium carbonate precipitation induced by the growth of the marine cyanobacteria <i>Trichodesmium</i> . <i>Limnology and Oceanography</i> , 2010, 55, 2563-2569.	3.1	60
22	Incorporation of uranium in benthic foraminiferal calcite reflects seawater carbonate ion concentration. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 102-111.	2.5	60
23	Calcium isotope fractionation during coccolith formation in <i>Emiliania huxleyi</i> : Independence of growth and calcification rate. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.	2.5	57
24	A laboratory study of ikaite ( $\text{CaCO}_3 \cdot 6\text{H}_2\text{O}$ ) precipitation as a function of pH, salinity, temperature and phosphate concentration. <i>Marine Chemistry</i> , 2014, 162, 10-18.	2.3	57
25	Methane production by three widespread marine phytoplankton species: release rates, precursor compounds, and potential relevance for the environment. <i>Biogeosciences</i> , 2019, 16, 4129-4144.	3.3	55
26	Calcium isotope fractionation in ikaite and vaterite. <i>Chemical Geology</i> , 2011, 285, 194-202.	3.3	54
27	Effect of pH and Phosphate on Calcium Carbonate Polymorphs Precipitated at near-Freezing Temperature. <i>Crystal Growth and Design</i> , 2015, 15, 1596-1601.	3.0	52
28	Confocal Raman microscope mapping as a tool to describe different mineral and organic phases at high spatial resolution within marine biogenic carbonates: case study on <i>Nerita undata</i> (Gastropoda, Neritopsina). <i>Biogeosciences</i> , 2011, 8, 3761-3769.	3.3	49
29	Effect of the fluorescent indicator calcein on Mg and Sr incorporation into foraminiferal calcite. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	2.5	48
30	Ballasting by cryogenic gypsum enhances carbon export in a <i>Phaeocystis</i> under-ice bloom. <i>Scientific Reports</i> , 2018, 8, 7703.	3.3	48
31	Distribution of sulphated polysaccharides within calcareous biominerals suggests a widely shared two-step crystallization process for the microstructural growth units. <i>Mineralogical Magazine</i> , 2008, 72, 233-237.	1.4	47
32	Layered Growth and Crystallization in Calcareous Biominerals: Impact of Structural and Chemical Evidence on Two Major Concepts in Invertebrate Biomineralization Studies. <i>Minerals (Basel)</i> , 2020, 10, 171.	1.4	46
33	EMP and SIMS studies on Mn/Ca and Fe/Ca systematics in benthic foraminifera from the Peruvian OMZ: a contribution to the identification of potential redox proxies and the impact of cleaning protocols. <i>Biogeosciences</i> , 2012, 9, 341-359.	3.3	45
34	Characterization of ikaite ( $\text{CaCO}_3 \cdot 6\text{H}_2\text{O}$ ) crystals in first-year Arctic sea ice north of Svalbard. <i>Annals of Glaciology</i> , 2013, 54, 125-131.	1.4	38
35	Diagenesis of mollusc aragonite and the role of fluid reservoirs. <i>Earth and Planetary Science Letters</i> , 2019, 514, 130-142.	4.4	37
36	Distribution and mineralogy of carbonate sediments on Antarctic shelves. <i>Journal of Marine Systems</i> , 2012, 90, 77-87.	2.1	36

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37	Barium partitioning in coccoliths of <i>Emiliania huxleyi</i> . <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 2899-2906.	3.9	35
38	The distribution of polyenes in the shell of <i>Arctica islandica</i> from North Atlantic localities: a confocal Raman microscopy study. <i>Journal of Molluscan Studies</i> , 2014, 80, 365-370.	1.2	32
39	Investigating the effects of growth rate and temperature on the B/Ca ratio and $\delta^{11}\text{B}$ during inorganic calcite formation. <i>Chemical Geology</i> , 2016, 421, 81-92.	3.3	32
40	Limpets counteract ocean acidification induced shell corrosion by thickening of aragonitic shell layers. <i>Biogeosciences</i> , 2014, 11, 7363-7368.	3.3	31
41	Elevated CO <sub>2</sub> Levels do not Affect the Shell Structure of the Bivalve <i>Arctica islandica</i> from the Western Baltic. <i>PLoS ONE</i> , 2013, 8, e70106.	2.5	31
42	Refining the interpretation of lacustrine carbonate isotope records: Implications of a mineralogy-specific Lake Van case study. <i>Chemical Geology</i> , 2019, 513, 167-183.	3.3	30
43	Pleistocene organic matter modified by the Hiawatha impact, northwest Greenland. <i>Geology</i> , 2020, 48, 867-871.	4.4	27
44	Reconstructing skeletal fiber arrangement and growth mode in the coral <i>Porites lutea</i> ; (Cnidaria, Scleractinia): a confocal Raman microscopy study. <i>Biogeosciences</i> , 2012, 9, 4885-4895.	3.3	24
45	Quantification of ikaite in Antarctic sea ice. <i>Antarctic Science</i> , 2013, 25, 421-432.	0.9	24
46	The impact of Mg contents on Sr partitioning in benthic foraminifers. <i>Chemical Geology</i> , 2015, 412, 92-98.	3.3	23
47	Boron incorporation in the foraminifer <i>Amphistegina lessonii</i> ; under a decoupled carbonate chemistry. <i>Biogeosciences</i> , 2015, 12, 1753-1763.	3.3	23
48	The effects of environment on <i>Arctica islandica</i> ; shell formation and architecture. <i>Biogeosciences</i> , 2017, 14, 1577-1591.	3.3	22
49	<i>In vivo</i> characterization of bivalve larval shells: a confocal Raman microscopy study. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20170723.	3.4	22
50	Evidence of a Biological Control over Origin, Growth and End of the Calcite Prisms in the Shells of <i>Pinctada margaritifera</i> (Pelecypod, Pterioidea). <i>Minerals (Basel, Switzerland)</i> , 2014, 4, 815-834.	2.0	21
51	Late Holocene to Recent aragonite-cemented transgressive lag deposits in the Abu Dhabi lagoon and intertidal sabkha. <i>Sedimentology</i> , 2020, 67, 2426-2454.	3.1	21
52	Impact of seawater $[\text{Ca}^{2+}]$ on the calcification and calcite Mg / Ca of <i>Amphistegina lessonii</i> . <i>Biogeosciences</i> , 2015, 12, 2153-2162.	3.3	20
53	Microstructures in relation to temperature-induced aragonite-to-calcite transformation in the marine gastropod <i>Phorcus turbinatus</i> . <i>PLoS ONE</i> , 2018, 13, e0204577.	2.5	20
54	Simultaneous determination of $\delta^{11}\text{B}$ and B/Ca ratio in marine biogenic carbonates at nanogram level. <i>Chemical Geology</i> , 2015, 392, 32-42.	3.3	18

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55	Ba incorporation in benthic foraminifera. <i>Biogeosciences</i> , 2017, 14, 3387-3400.	3.3	18
56	Variation in the diagenetic response of aragonite archives to hydrothermal alteration. <i>Sedimentary Geology</i> , 2020, 406, 105716.	2.1	18
57	Impact of sample pretreatment on the measured element concentrations in the bivalve <i>Arctica islandica</i> . <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, n/a-n/a.	2.5	17
58	Limpet Shells from the Aterian Level 8 of El Harhoura 2 Cave (Tâ©mara, Morocco): Preservation State of Crossed-Foliated Layers. <i>PLoS ONE</i> , 2015, 10, e0137162.	2.5	16
59	Effects of Temperature and Light on Methane Production of Widespread Marine Phytoplankton. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2020JG005793.	3.0	15
60	Dissolution of <i>Calcidiscus leptoporus</i> coccoliths in copepod guts? A morphological study. <i>Marine Ecology - Progress Series</i> , 2007, 331, 139-146.	1.9	15
61	Laboratory study on coprecipitation of phosphate with ikaite in sea ice. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 7007-7015.	2.6	14
62	The influence of skeletal micro-structures on potential proxy records in a bamboo coral. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 248, 43-60.	3.9	14
63	Sr partitioning in the benthic foraminifera <i>Ammonia aomoriensis</i> and <i>Amphistegina lessonii</i> . <i>Chemical Geology</i> , 2016, 440, 306-312.	3.3	12
64	Controlling CaCO <sub>3</sub> Particle Size with {Ca <sup>2+</sup> }:{CO <sub>3</sub> <sup>2-</sup> } Ratios in Aqueous Environments. <i>Crystal Growth and Design</i> , 2021, 21, 1576-1590.	3.0	12
65	Sodium incorporation into inorganic CaCO <sub>3</sub> and implications for biogenic carbonates. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 314, 294-312.	3.9	12
66	Li partitioning in the benthic foraminifera <i>Amphistegina lessonii</i> . <i>Geochemistry, Geophysics, Geosystems</i> , 2015, 16, 4275-4279.	2.5	11
67	Influence of glacial water and carbonate minerals on wintertime sea-ice biogeochemistry and the CO <sub>2</sub> system in an Arctic fjord in Svalbard. <i>Annals of Glaciology</i> , 2020, 61, 320-340.	1.4	9
68	Confocal Raman microscopy in sclerochronology: A powerful tool to visualize environmental information in recent and fossil biogenic archives. <i>Geochemistry, Geophysics, Geosystems</i> , 2015, 16, 325-335.	2.5	8
69	Endolithic Algae Affect Modern Coral Carbonate Morphology and Chemistry. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	7
70	COMBINED IMPACTS OF OCEAN ACIDIFICATION AND DYSOXIA ON SURVIVAL AND GROWTH OF FOUR AGGLUTINATING FORAMINIFERA. <i>Journal of Foraminiferal Research</i> , 2017, 47, 294-303.	0.5	6
71	Relationship between mineralogy and minor element partitioning in limpets from an Ischia CO <sub>2</sub> vent site provides new insights into their biomineralization pathway. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 236, 218-229.	3.9	6
72	Li Partitioning Into Coccoliths of <i>Emiliania huxleyi</i> : Evaluating the General Role of "Vital Effects" in Explaining Element Partitioning in Biogenic Carbonates. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009129.	2.5	6

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73	Complex Biomineralization Pathways of the Belemnite Rostrum Cause Biased Paleotemperature Estimates. <i>Minerals</i> (Basel, Switzerland), 2021, 11, 1406.	2.0	6
74	Hierarchical textures on aragonitic shells of the hyaline radial foraminifer <i>Hoeglundina elegans</i> . <i>CrystEngComm</i> , 2017, 19, 7191-7196.	2.6	5
75	Determination Of Trace Element Incorporation Into Tests Of In Vitro Grown Foraminifera By Micro-SYXRFâ€”A Basis For The Development Of Paleoproxies. , 2010, , .		3
76	Incorporation of Na and S in bamboo coral skeletons. <i>Chemical Geology</i> , 2022, 597, 120795.	3.3	3
77	Bivalve Shellsâ€”Unique High-Resolution Archives of the Environmental Past. <i>Springer Earth System Sciences</i> , 2015, , 173-182.	0.2	2
78	Comment on “In situ multielemental monitoring in coral skeleton by CF-LIBS” by S. Pandhija and A.K. Rai (DOI:10.1007/s00340-008-3343-5). <i>Applied Physics B: Lasers and Optics</i> , 2011, 104, 1043-1043.	2.2	1
79	Corrigendum to “Boron incorporation in the foraminifer <i>Amphistegina lessonii</i> under a decoupled carbonate chemistry” published in <i>Biogeosciences</i> , 12, 1753â€”1763, 2015. <i>Biogeosciences</i> , 2015, 12, 2469-2469.	3.3	1