Gunnar Gerdts

List of Publications by Year
in descending order

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113 papers	16,175 citations	41344 49 h-index	22832 112 g-index
116 all docs	116 docs citations	116 times ranked	15894 citing authors

#	Article	IF	Citations
1	A communal catalogue reveals Earthâ€™s multiscale microbial diversity. Nature, 2017, 551, 457-463.	27.8	1,942
2	Substrate-Controlled Succession of Marine Bacterioplankton Populations Induced by a Phytoplankton Bloom. Science, 2012, 336, 608-611.	12.6	1,304
3	Identification of microplastic in effluents of waste water treatment plants using focal plane array-based micro-Fourier-transform infrared imaging. Water Research, 2017, 108, 365-372.	11.3	1,002
4	White and wonderful? Microplastics prevail in snow from the Alps to the Arctic. Science Advances, 2019, 5, eaax1157.	10.3	790
5	Arctic sea ice is an important temporal sink and means of transport for microplastic. Nature Communications, 2018, 9, 1505.	12.8	670
6	High Quantities of Microplastic in Arctic Deep-Sea Sediments from the HAUSGARTEN Observatory. Environmental Science & Technology, 2017, 51, 11000-11010.	10.0	630
7	Dangerous hitchhikers? Evidence for potentially pathogenic Vibrio spp. on microplastic particles. Marine Environmental Research, 2016, 120, 1-8.	2.5	629
8	Plastic ingestion by pelagic and demersal fish from the North Sea and Baltic Sea. Marine Pollution Bulletin, 2016, 102, 134-141.	5.0	470
9	Focal plane array detector-based micro-Fourier-transform infrared imaging for the analysis of microplastics in environmental samples. Environmental Chemistry, 2015, 12, 563.	1.5	414
10	Recurring patterns in bacterioplankton dynamics during coastal spring algae blooms. ELife, 2016, 5, e11888.	6.0	414
11	Spatial and seasonal variation in diversity and structure of microbial biofilms on marine plastics in Northern European waters. FEMS Microbiology Ecology, 2014, 90, 478-492.	2.7	376
12	Microplastic concentrations in beach sediments along the German Baltic coast. Marine Pollution Bulletin, 2015, 99, 216-229.	5.0	365
13	Reference database design for the automated analysis of microplastic samples based on Fourier transform infrared (FTIR) spectroscopy. Analytical and Bioanalytical Chemistry, 2018, 410, 5131-5141.	3.7	342
14	Enzymatic Purification of Microplastics in Environmental Samples. Environmental Science & Technology, 2017, 51, 14283-14292.	10.0	338
15	An automated approach for microplastics analysis using focal plane array (FPA) FTIR microscopy and image analysis. Analytical Methods, 2017, 9, 1499-1511.	2.7	320
16	Methodology Used for the Detection and Identification of Microplasticsâ€”A Critical Appraisal. , 2015, , 201-227.		278
17	Comparison of Raman and Fourier Transform Infrared Spectroscopy for the Quantification of Microplastics in the Aquatic Environment. Environmental Science & Technology, 2018, 52, 13279-13288.	10.0	251
18	The complete genome sequence of the algal symbiont Dinoroseobacter shibae: a hitchhiker's guide to life in the sea. ISME Journal, 2010, 4, 61-77.	9.8	244

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19	Isolation of Novel Pelagic Bacteria from the German Bight and Their Seasonal Contributions to Surface Picoplankton. Applied and Environmental Microbiology, 2001, 67, 5134-5142.	3.1	238
20	Species-Specific Bacterial Communities in the Phycosphere of Microalgae?. Microbial Ecology, 2007, 53, 683-699.	2.8	233
21	Helgoland Roads, North Sea: 45ÂYears of Change. Estuaries and Coasts, 2010, 33, 295-310.	2.2	198
22	Spatial distribution of microplastics in sediments and surface waters of the southern North Sea. Environmental Pollution, 2019, 252, 1719-1729.	7.5	190
23	The ocean sampling day consortium. GigaScience, 2015, 4, 27.	6.4	185
24	Tying up Loose Ends of Microplastic Pollution in the Arctic: Distribution from the Sea Surface through the Water Column to Deep-Sea Sediments at the HAUSGARTEN Observatory. Environmental Science & Technology, 2020, 54, 4079-4090.	10.0	183
25	The Plastisphere â€“ Uncovering tightly attached plastic â€œspecificâ€•microorganisms. PLoS ONE, 2019, 14, e0215859.	2.5	168
26	Small Changes in pH Have Direct Effects on Marine Bacterial Community Composition: A Microcosm Approach. PLoS ONE, 2012, 7, e47035.	2.5	152
27	Microplastic Pollution in Benthic Midstream Sediments of the Rhine River. Environmental Science & Technology, 2019, 53, 6053-6062.	10.0	150
28	Mature biofilm communities on synthetic polymers in seawater - Specific or general?. Marine Environmental Research, 2018, 142, 147-154.	2.5	147
29	Different stories told by small and large microplastics in sediment - first report of microplastic concentrations in an urban recipient in Norway. Marine Pollution Bulletin, 2019, 141, 501-513.	5.0	138
30	Recurrent patterns of microdiversity in a temperate coastal marine environment. ISME Journal, 2018, 12, 237-252.	9.8	135
31	Toward the Systematic Identification of Microplastics in the Environment: Evaluation of a New Independent Software Tool (siMPle) for Spectroscopic Analysis. Applied Spectroscopy, 2020, 74, 1127-1138.	2.2	130
32	Comparison of pyrolysis gas chromatography/mass spectrometry and hyperspectral FTIR imaging spectroscopy for the analysis of microplastics. Analytical and Bioanalytical Chemistry, 2020, 412, 8283-8298.	3.7	112
33	Bacterial community dynamics during the winterÃ¢Â€Â“spring transition in the North Sea. FEMS Microbiology Ecology, 2007, 59, 622-637.	2.7	111
34	Bacterial communities associated with four ctenophore genera from the German Bight (North Sea). FEMS Microbiology Ecology, 2015, 91, 1-11.	2.7	108
35	Microplastics in oceans. Marine Pollution Bulletin, 2011, 62, 1589-1591.	5.0	99
36	Seasonal Dynamics and Modeling of a Vibrio Community in Coastal Waters of the North Sea. Microbial Ecology, 2012, 63, 543-551.	2.8	95

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37	Bloom forming Alexandrium ostenfeldii (Dinophyceae) in shallow waters of the Ã...land Archipelago, Northern Baltic Sea. Harmful Algae, 2009, 8, 318-328.	4.8	92
38	Comparison of molecular species identification for <scp>N</scp>orth <scp>S</scp>ea calanoid copepods (<scp>C</scp>rustacea) using proteome fingerprints and <scp>DNA</scp> sequences. Molecular Ecology Resources, 2013, 13, 862-876.	4.8	89
39	Temporal and Spatial Distribution Patterns of Potentially Pathogenic Vibrio spp. at Recreational Beaches of the German North Sea. Microbial Ecology, 2013, 65, 1052-1067.	2.8	85
40	Characterizing the multidimensionality of microplastics across environmental compartments. Water Research, 2021, 202, 117429.	11.3	79
41	Bacterial diversity in the breadcrumb sponge Halichondria panicea (Pallas). FEMS Microbiology Ecology, 2006, 56, 102-118.	2.7	77
42	Characteristic profiles of Ciguatera toxins in different strains of Gambierdiscus spp.. Toxicon, 2010, 56, 731-738.	1.6	68
43	VibrioBase: A MALDI-TOF MS database for fast identification of Vibrio spp. that are potentially pathogenic in humans. Systematic and Applied Microbiology, 2015, 38, 16-25.	2.8	66
44	Spatial distribution of marine airborne bacterial communities. MicrobiologyOpen, 2015, 4, 475-490.	3.0	64
45	Rapid Identification and Quantification of Microplastics in the Environment by Quantum Cascade Laser-Based Hyperspectral Infrared Chemical Imaging. Environmental Science & Technology, 2020, 54, 15893-15903.	10.0	62
46	Overview of key phytoplankton toxins and their recent occurrence in the North and Baltic Seas. Environmental Toxicology, 2005, 20, 1-17.	4.0	60
47	Bacterial biofilms colonizing plastics in estuarine waters, with an emphasis onÂVibrioÂspp. and their antibacterial resistance. PLoS ONE, 2020, 15, e0237704.	2.5	58
48	Quantifying microplastic translocation from feed to the fillet in European sea bass Dicentrarchus labrax. Marine Pollution Bulletin, 2020, 156, 111210.	5.0	56
49	The Travelling Particles: Investigating microplastics as possible transport vectors for multidrug resistant E. coli in the Weser estuary (Germany). Science of the Total Environment, 2020, 720, 137603.	8.0	56
50	Bacteria of the Genus Roseobacter Associated with the Toxic Dinoflagellate Prorocentrum lima. Protist, 1998, 149, 347-357.	1.5	55
51	Occurrence of Vibrio parahaemolyticus and Vibrio alginolyticus in the German Bight over a seasonal cycle. Antonie Van Leeuwenhoek, 2011, 100, 291-307.	1.7	54
52	Temporal Variability of Coastal Planctomycetes Clades at Kabeltonne Station, North Sea. Applied and Environmental Microbiology, 2011, 77, 5009-5017.	3.1	52
53	Library based identification and characterisation of polymers with nano-FTIR and IR-sSNOM imaging. Analytical Methods, 2019, 11, 5195-5202.	2.7	52
54	The founding charter of the Genomic Observatories Network. GigaScience, 2014, 3, 2.	6.4	51

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55	Systematic identification of microplastics in abyssal and hadal sediments of the Kuril Kamchatka trench. Environmental Pollution, 2021, 269, 116095.	7.5	51
56	Practical application of self-organizing maps to interrelate biodiversity and functional data in NGS-based metagenomics. ISME Journal, 2011, 5, 918-928.	9.8	50
57	Constitutive Expression of the Proteorhodopsin Gene by a Flavobacterium Strain Representative of the Proteorhodopsin-Producing Microbial Community in the North Sea. Applied and Environmental Microbiology, 2010, 76, 3187-3197.	3.1	49
58	Impacts of Cultivation of Marine Diatoms on the Associated Bacterial Community. Applied and Environmental Microbiology, 2007, 73, 3117-3120.	3.1	48
59	Short-Term Dynamics of North Sea Bacterioplankton-Dissolved Organic Matter Coherence on Molecular Level. Frontiers in Microbiology, 2016, 7, 321.	3.5	48
60	Microplastics in the Weddell Sea (Antarctica): A Forensic Approach for Discrimination between Environmental and Vessel-Induced Microplastics. Environmental Science & Technology, 2021, 55, 15900-15911.	10.0	47
61	In vitro transformation of PSP toxins by different shellfish tissues. Harmful Algae, 2007, 6, 308-316.	4.8	45
62	Annual dynamics of North Sea bacterioplankton: seasonal variability superimposes short-term variation. FEMS Microbiology Ecology, 2015, 91, fiv099.	2.7	45
63	Populations of heavy fuel oil-degrading marine microbial community in presence of oil sorbent materials. Journal of Applied Microbiology, 2009, 107, 590-605.	3.1	44
64	Microbial consortia in mesocosm bioremediation trial using oil sorbents, slow-release fertilizer and bioaugmentation. FEMS Microbiology Ecology, 2009, 69, 288-300.	2.7	44
65	Influence of nutrients, temperature, light and salinity on the occurrence of Paralia sulcata at Helgoland Roads, North Sea. Aquatic Biology, 2009, 7, 185-197.	1.4	42
66	Microplastics in two German wastewater treatment plants: Year-long effluent analysis with FTIR and Py-GC/MS. Science of the Total Environment, 2022, 817, 152619.	8.0	42
67	40-year long-term study of microbial parameters near Helgoland (German Bight, North Sea): historical view and future perspectives. Helgoland Marine Research, 2004, 58, 230-242.	1.3	37
68	Pseudoalteromonas spp. phages, a significant group of marine bacteriophages in the North Sea. Aquatic Microbial Ecology, 2002, 27, 233-239.	1.8	34
69	Erratum to Bacterial diversity in toxic Alexandrium tamarense blooms off the Orkney Isles and the Firth of Forth. Helgoland Marine Research, 2004, 58, 93-103.	1.3	33
70	Microplastic pollution in the Weser estuary and the German North Sea. Environmental Pollution, 2021, 288, 117681.	7.5	33
71	Effects of salinity, temperature and nutrients on growth, cellular characteristics and yessotoxin production of Protoceratium reticulatum. Harmful Algae, 2012, 15, 59-70.	4.8	32
72	Simultaneous analysis of different algal toxins by LC-MS. Chromatographia, 2002, 55, 673-680.	1.3	31

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73	Diarrhetic shellfish toxicity in relation to the abundance of Dinophysis spp. in the German Bight near Helgoland. Marine Ecology - Progress Series, 2003, 259, 93-102.	1.9	31
74	Phylogenetic analysis of selected toxic and non-toxic bacterial strains isolated from the toxic dinoflagellate Alexandrium tamarense. FEMS Microbiology Ecology, 2006, 24, 251-257.	2.7	30
75	CONTRIBUTION OF THE CLASS CRYPTOPHYCEAE TO PHYTOPLANKTON STRUCTURE IN THE GERMAN BIGHT¹. Journal of Phycology, 2010, 46, 1152-1160.	2.3	29
76	Composition and dynamics of biostimulated indigenous oil-degrading microbial consortia from the Irish, North and Mediterranean Seas: a mesocosm study. FEMS Microbiology Ecology, 2012, 81, 520-536.	2.7	29
77	The microbiome of North Sea copepods. Helgoland Marine Research, 2013, 67, 757-773.	1.3	29
78	Combined Carbohydrates Support Rich Communities of Particle-Associated Marine Bacterioplankton. Frontiers in Microbiology, 2017, 08, 65.	3.5	28
79	Marine fungi may benefit from ocean acidification. Aquatic Microbial Ecology, 2013, 69, 59-67.	1.8	27
80	Effect of elevated CO₂ on the dynamics of particle-attached and free-living bacterioplankton communities in an Arctic fjord. Biogeosciences, 2013, 10, 181-191.	3.3	26
81	FISH and chips: Marine bacterial communities analyzed by flow cytometry based on microfluidics. Journal of Microbiological Methods, 2006, 64, 232-240.	1.6	25
82	Are spirolides converted in biological systems?â€”A study. Toxicon, 2008, 51, 934-940.	1.6	24
83	Comparison and uncertainty evaluation of two centrifugal separators for microplastic sampling. Journal of Hazardous Materials, 2021, 414, 125482.	12.4	24
84	Neuroactive compounds produced by bacteria from the marine sponge Halichondria panicea: activation of the neuronal NMDA receptor. Environmental Toxicology and Pharmacology, 1998, 6, 125-133.	4.0	23
85	A Mesocosm Study of the Changes in Marine Flagellate and Ciliate Communities in a Crude Oil Bioremediation Trial. Microbial Ecology, 2010, 60, 180-191.	2.8	23
86	Population analysis of Vibrio parahaemolyticus originating from different geographical regions demonstrates a high genetic diversity. BMC Microbiology, 2014, 14, 59.	3.3	23
87	Using FTIRS as pre-screening method for detection of microplastic in bulk sediment samples. Science of the Total Environment, 2019, 689, 341-346.	8.0	23
88	Seasonal Dynamics of Pelagic Mycoplanktonic Communities: Interplay of Taxon Abundance, Temporal Occurrence, and Biotic Interactions. Frontiers in Microbiology, 2020, 11, 1305.	3.5	23
89	Potentially human pathogenic Vibrio spp. in a coastal transect: Occurrence and multiple virulence factors. Science of the Total Environment, 2020, 707, 136113.	8.0	22
90	A polyphasic approach for the differentiation of environmental Vibrio isolates from temperate waters. FEMS Microbiology Ecology, 2011, 75, 145-162.	2.7	21

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91	Cross-Hemisphere Study Reveals Geographically Ubiquitous, Plastic-Specific Bacteria Emerging from the Rare and Unexplored Biosphere. MSphere, 2021, 6, e0085120.	2.9	20
92	Spirochetes in Crystalline Styles of Marine Bivalves: Group-Specific PCR Detection and 16S rRNA Sequence Analysis. Journal of Shellfish Research, 2010, 29, 1069-1075.	0.9	18
93	Distinct seasonal growth patterns of the bacteriumPlanktotalea frisiain the North Sea and specific interaction with phytoplankton algae. FEMS Microbiology Ecology, 2013, 86, 185-199.	2.7	17
94	Spatiotemporal variation of the bacterioplankton community in the German Bight: from estuarine to offshore regions. Helgoland Marine Research, 2016, 70, .	1.3	17
95	Impacts of a reduction in seawater pH mimicking ocean acidification on the structure and diversity of mycoplankton communities. Aquatic Microbial Ecology, 2017, 79, 221-233.	1.8	16
96	The travelling particles: community dynamics of biofilms on microplastics transferred along a salinity gradient. ISME Communications, 2022, 2, .	4.2	15
97	Consuming algal products: trophic interactions of bacteria and a diatom species determined by RNA stable isotope probing. Helgoland Marine Research, 2008, 62, 283-287.	1.3	11
98	Comparison of different DNA-extraction techniques to investigate the bacterial community of marine copepods. Helgoland Marine Research, 2010, 64, 331-342.	1.3	11
99	Structural composition and temporal variation of the ciliate community in relation to environmental factors at Helgoland Roads, North Sea. Journal of Sea Research, 2015, 101, 19-30.	1.6	10
100	Bacterial communities associated with scyphomedusae at Helgoland Roads. Marine Biodiversity, 2019, 49, 1489-1503.	1.0	10
101	A fast fluorimetric assay (FFA) for the detection of saxitoxin in natural phytoplankton samples. Marine Ecology - Progress Series, 2002, 230, 29-34.	1.9	8
102	Human footprints at hadal depths: interlayer and intralayer comparison of sediment cores from the Kuril Kamchatka trench. Science of the Total Environment, 2022, 838, 156035.	8.0	8
103	Accumulation and Depuration of Yessotoxin in Two Bivalves. Journal of Shellfish Research, 2011, 30, 167-175.	0.9	7
104	Study on the effects of near-future ocean acidification on marine yeasts: a microcosm approach. Helgoland Marine Research, 2013, 67, 607-621.	1.3	7
105	Mycoplankton Biome Structure and Assemblage Processes Differ Along a Transect From the Elbe River Down to the River Plume and the Adjacent Marine Waters. Frontiers in Microbiology, 2021, 12, 640469.	3.5	7
106	Geo-Chip analysis reveals reduced functional diversity of the bacterial community at a dumping site for dredged Elbe sediment. Marine Pollution Bulletin, 2013, 77, 113-122.	5.0	6
107	Bacterial community succession in response to dissolved organic matter released from live jellyfish. Journal of Oceanology and Limnology, 2019, 37, 1229-1244.	1.3	5
108	Paraffin and other petroleum waxes in the southern North Sea. Marine Pollution Bulletin, 2021, 162, 111807.	5.0	5

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109	Dissolved organic compounds with synchronous dynamics share chemical properties and origin. Limnology and Oceanography, 2021, 66, 4001-4016.	3.1	5
110	Fish as a winter reservoir for Vibrio spp. in the southern Baltic Sea coast. Journal of Marine Systems, 2021, 221, 103574.	2.1	2
111	MikroplastikmÃ¼ll im Meer. , 2017, , 135-142.		1
112	Glass ionomer shade selection using a porcelain shade guide. Journal of Prosthetic Dentistry, 1992, 67, 280-281.	2.8	0
113	Phylogenetic analysis of selected toxic and non-toxic bacterial strains isolated from the toxic dinoflagellate Alexandrium tamarense. FEMS Microbiology Ecology, 1997, 24, 251-257.	2.7	0