Kai Finster

List of Publications by Year
in descending order

116 papers	5,928 citations	53660 45 h-index	82410 72 g-index
126 all docs	126 docs citations	126 times ranked	6748 citing authors

#	Article	IF	Citations
1	Bacterial Disproportionation of Elemental Sulfur Coupled to Chemical Reduction of Iron or Manganese. Applied and Environmental Microbiology, 1993, 59, 101-108.	1.4	363
2	Elemental Sulfur and Thiosulfate Disproportionation by Desulfocapsa sulfoexigens sp. nov., a New Anaerobic Bacterium Isolated from Marine Surface Sediment. Applied and Environmental Microbiology, 1998, 64, 119-125.	1.4	300
3	Microbial community composition of the ileum and cecum of broiler chickens as revealed by molecular and culture-based techniques. Poultry Science, 2006, 85, 1151-1164.	1.5	225
4	Biogeochemical and Molecular Signatures of Anaerobic Methane Oxidation in a Marine Sediment. Applied and Environmental Microbiology, 2001, 67, 1646-1656.	1.4	204
5	Microbiological disproportionation of inorganic sulfur compounds. Journal of Sulfur Chemistry, 2008, 29, 281-292.	1.0	189
6	A Constant Flux of Diverse Thermophilic Bacteria into the Cold Arctic Seabed. Science, 2009, 325, 1541-1544.	6.0	189
7	Hailstones: A Window into the Microbial and Chemical Inventory of a Storm Cloud. PLoS ONE, 2013, 8, e53550.	1.1	186
8	Sulphate reduction and nitrogen fixation rates associated with roots, rhizomes and sediments from Zostera noltii and Spartina maritima meadows. Environmental Microbiology, 2001, 3, 63-71.	1.8	138
9	Methane emission and consumption at a North Sea gas seep (Tommeliten area). Biogeosciences, 2005, 2, 335-351.	1.3	129
10	Viability, diversity and composition of the bacterial community in a high Arctic permafrost soil from Spitsbergen, Northern Norway. Environmental Microbiology, 2007, 9, 2870-2884.	1.8	129
11	Disguised as a Sulfate Reducer: Growth of the Deltaproteobacterium Desulfurivibrio alkaliphilus by Sulfide Oxidation with Nitrate. MBio, 2017, 8, .	1.8	122
12	ROBUST: The ROle of BUffering capacities in STabilising coastal lagoon ecosystems. Continental Shelf Research, 2001, 21, 2021-2041.	0.9	118
13	Occurrence of antimicrobial resistance in bacteria from diagnostic samples from dogs. Journal of Antimicrobial Chemotherapy, 2007, 60, 775-781.	1.3	117
14	Basal ice microbiology at the margin of the Greenland ice sheet. Annals of Glaciology, 2010, 51, 71-79.	2.8	112
15	Fermentation of methanethiol and dimethylsulfide by a newly isolated methanogenic bacterium. Archives of Microbiology, 1992, 157, 425-430.	1.0	106
16	Disproportionation of elemental sulfur by haloalkaliphilic bacteria from soda lakes. Extremophiles, 2013, 17, 1003-1012.	0.9	104
17	Bio-supported palladium nanoparticles as a catalyst for Suzukiâ€“Miyaura and Mizorokiâ€“Heck reactions. Green Chemistry, 2009, 11, 2041.	4.6	82
18	Dispersal of thermophilic Desulfotomaculum endospores into Baltic Sea sediments over thousands of years. ISME Journal, 2013, 7, 72-84.	4.4	82

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19	Characterization of airborne ice-nucleation-active bacteria and bacterial fragments. Atmospheric Environment, 2015, 109, 105-117.	1.9	81
20	Aeolian dispersal of bacteria in southwest Greenland: their sources, abundance, diversity and physiological states. FEMS Microbiology Ecology, 2018, 94, .	1.3	79
21	Formation of palladium(0) nanoparticles at microbial surfaces. Biotechnology and Bioengineering, 2010, 107, 206-215.	1.7	78
22	Observations on microbial activity in acidified pig slurry. Biosystems Engineering, 2009, 102, 291-297.	1.9	77
23	Distribution of viruses and bacteria in relation to diagenetic activity in an estuarine sediment. Limnology and Oceanography, 2003, 48, 1447-1456.	1.6	76
24	Gastrointestinal and Microbial Responses to Sulfate-Supplemented Drinking Water in Mice. Experimental Biology and Medicine, 2003, 228, 424-433.	1.1	75
25	Formation of dimethylsulfide and methanethiol from methoxylated aromatic compounds and inorganic sulfide by newly isolated anaerobic bacteria. Archives of Microbiology, 1992, 157, 529-534.	1.0	74
26	Spirosoma spitsbergense sp. nov. and Spirosoma luteum sp. nov., isolated from a high Arctic permafrost soil, and emended description of the genus Spirosoma. International Journal of Systematic and Evolutionary Microbiology, 2009, 59, 839-844.	0.8	72
27	Thiosulfate and sulfite distributions in porewater of marine sediments related to manganese, iron, and sulfur geochemistry. Geochimica Et Cosmochimica Acta, 1994, 58, 67-73.	1.6	70
28	Methanobacterium aarhusense sp. nov., a novel methanogen isolated from a marine sediment (Aarhus) Tj ETQq0 0 0 rgBT /Overlock 10	0.8	70
29	Complete genome sequence of Desulfocapsa sulfexigens, a marine deltaproteobacterium specialized in disproportionating inorganic sulfur compounds. Standards in Genomic Sciences, 2013, 8, 58-68.	1.5	69
30	A sink for methane on Mars? The answer is blowing in the wind. Icarus, 2014, 236, 24-27.	1.1	67
31	Space station biomining experiment demonstrates rare earth element extraction in microgravity and Mars gravity. Nature Communications, 2020, 11, 5523.	5.8	67
32	The importance of sulfate reduction associated with Ulva lactuca thalli during decomposition: a mesocosm experiment. Journal of Experimental Marine Biology and Ecology, 2002, 275, 15-29.	0.7	66
33	Nonâ€enzymatic palladium recovery on microbial and synthetic surfaces. Biotechnology and Bioengineering, 2012, 109, 1889-1897.	1.7	65
34	Desulfovibrio zosterae sp. nov., a new sulfate reducer isolated from surface-sterilized roots of the seagrass Zostera marina. International Journal of Systematic and Evolutionary Microbiology, 1999, 49, 859-865.	0.8	65
35	Microbial Links between Sulfate Reduction and Metal Retention in Uranium- and Heavy Metal-Contaminated Soil. Applied and Environmental Microbiology, 2010, 76, 3143-3152.	1.4	63
36	The microbial diversity of a storm cloud as assessed by hailstones. FEMS Microbiology Ecology, 2012, 81, 684-695.	1.3	59

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37	Formation of methylmercaptan and dimethylsulfide from methoxylated aromatic compounds in anoxic marine and fresh water sediments. FEMS Microbiology Letters, 1990, 74, 295-301.	0.7	58
38	Desulfospira joergensenii, gen. nov., sp. nov., a new Sulfate-reducing Bacterium Isolated from Marine Surface Sediment. Systematic and Applied Microbiology, 1997, 20, 201-208.	1.2	58
39	A Comprehensive Investigation on Iron Cycling in a Freshwater Seep Including Microscopy, Cultivation and Molecular Community Analysis. Geomicrobiology Journal, 2010, 27, 15-34.	1.0	58
40	Large sulfur isotope fractionation by bacterial sulfide oxidation. Science Advances, 2019, 5, eaaw1480.	4.7	57
41	Desulfuromonas acetexigens sp. nov., a dissimilatory sulfur-reducing eubacterium from anoxic freshwater sediments. Archives of Microbiology, 1994, 161, 328-332.	1.0	56
42	Methane flux and high-affinity methanotrophic diversity along the chronosequence of a receding glacier in Greenland. Annals of Glaciology, 2010, 51, 23-31.	2.8	54
43	Environmentally Benign Recovery and Reactivation of Palladium from Industrial Waste by Using Gramâ€Negative Bacteria. ChemSusChem, 2010, 3, 1036-1039.	3.6	54
44	Sulfite-oxido-reductase is involved in the oxidation of sulfite in Desulfocapsa sulfoexigens during disproportionation of thiosulfate and elemental sulfur. Biodegradation, 2003, 14, 189-198.	1.5	53
45	Benthic decomposition of Ulva lactuca: A controlled laboratory experiment. Aquatic Botany, 2006, 85, 271-281.	0.8	52
46	Size control and catalytic activity of bio-supported palladium nanoparticles. Colloids and Surfaces B: Biointerfaces, 2011, 85, 373-378.	2.5	51
47	High-Flow-Rate Impinger for the Study of Concentration, Viability, Metabolic Activity, and Ice-Nucleation Activity of Airborne Bacteria. Environmental Science & Technology, 2017, 51, 11224-11234.	4.6	47
48	Desulfovibrio oceani subsp. oceani sp. nov., subsp. nov. and Desulfovibrio oceani subsp. galateae subsp. nov., novel sulfate-reducing bacteria isolated from the oxygen minimum zone off the coast of Peru. Antonie Van Leeuwenhoek, 2010, 97, 221-229.	0.7	46
49	The effect of temperature change on the microbial diversity and community structure along the chronosequence of the sub-arctic glacier forefield of Styggedalsbreen (Norway). FEMS Microbiology Ecology, 2016, 92, fnw038.	1.3	43
50	Ice-nucleating proteins are activated by low temperatures to control the structure of interfacial water. Nature Communications, 2021, 12, 1183.	5.8	40
51	Isolation and characterization of Sulfurospirillum carboxydovorans sp. nov., a new microaerophilic carbon monoxide oxidizing epsilon Proteobacterium. Antonie Van Leeuwenhoek, 2005, 87, 339-353.	0.7	39
52	A Facility for Long-Term Mars Simulation Experiments: The Mars Environmental Simulation Chamber (MESCH). Astrobiology, 2008, 8, 537-548.	1.5	37
53	Spatial Patterns of Soil Development, Methane Oxidation, and Methanotrophic Diversity along a Receding Glacier Forefield, Southeast Greenland. Arctic, Antarctic, and Alpine Research, 2011, 43, 178-188.	0.4	36
54	The Tubular Sheaths Encasing Methanosaeta thermophila Filaments Are Functional Amyloids. Journal of Biological Chemistry, 2015, 290, 20590-20600.	1.6	36

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55	The pH and pCO2 dependence of sulfate reduction in shallow-sea hydrothermal CO2 â€“ venting sediments (Milos Island, Greece). Frontiers in Microbiology, 2013, 4, 111.	1.5	34
56	Viable methanotrophic bacteria enriched from air and rain can oxidize methane at cloud-like conditions. Aerobiologia, 2013, 29, 373-384.	0.7	33
57	Pig Farmersâ€™ Homes Harbor More Diverse Airborne Bacterial Communities Than Pig Stables or Suburban Homes. Frontiers in Microbiology, 2018, 9, 870.	1.5	33
58	Characterization of the marine propionate-degrading, sulfate-reducing bacterium Desulfofaba fastidiosa sp. nov. and reclassification of Desulfomusa hansenii as Desulfofaba hansenii comb. nov.. International Journal of Systematic and Evolutionary Microbiology, 2004, 54, 393-399.	0.8	31
59	Characterization of the psychrotolerant acetogen strain SyrA5 and the emended description of the species Acetobacterium carbinolicum. Antonie Van Leeuwenhoek, 2006, 89, 55-69.	0.7	30
60	Impact Disruption and Recovery of the Deep Subsurface Biosphere. Astrobiology, 2012, 12, 231-246.	1.5	30
61	Effect of Aerosolization and Drying on the Viability of Pseudomonas syringae Cells. Frontiers in Microbiology, 2018, 9, 3086.	1.5	30
62	Utilization of marine sedimentary dissolved organic nitrogen by native anaerobic bacteria. Limnology and Oceanography, 2002, 47, 1712-1722.	1.6	29
63	Desulfobacter psychrotolerans sp. nov., a new psychrotolerant sulfate-reducing bacterium and descriptions of its physiological response to temperature changes. Antonie Van Leeuwenhoek, 2006, 89, 109-124.	0.7	29
64	No Effect of Microgravity and Simulated Mars Gravity on Final Bacterial Cell Concentrations on the International Space Station: Applications to Space Bioproduction. Frontiers in Microbiology, 2020, 11, 579156.	1.5	29
65	High quality draft genome sequence of Janthinobacterium psychrotolerans sp. nov., isolated from a frozen freshwater pond. Standards in Genomic Sciences, 2017, 12, 8.	1.5	28
66	Degradation of carbazole, dibenzothiophene, and dibenzofuran at low temperature by Pseudomonas sp. strain C3211. Environmental Toxicology and Chemistry, 2003, 22, 730-735.	2.2	27
67	Description of Tessaracoccus profundi sp.nov., a deep-subsurface actinobacterium isolated from a Chesapeake impact crater drill core (940Âm depth). Antonie Van Leeuwenhoek, 2009, 96, 515-526.	0.7	27
68	The transformation of inorganic sulfur compounds and the assimilation of organic and inorganic carbon by the sulfur disproportionating bacterium Desulfocapsa sulfoexigens. Antonie Van Leeuwenhoek, 2004, 85, 141-149.	0.7	26
69	Effects of Long-Term Simulated Martian Conditions on a Freeze-Dried and Homogenized Bacterial Permafrost Community. Astrobiology, 2009, 9, 229-240.	1.5	26
70	Demequina lutea sp. nov., isolated from a high Arctic permafrost soil. International Journal of Systematic and Evolutionary Microbiology, 2009, 59, 649-653.	0.8	26
71	Complete Oxidation of Propionate, Valerate, Succinate, and Other Organic Compounds by Newly Isolated Types of Marine, Anaerobic, Mesophilic, Gram-Negative, Sulfur-Reducing Eubacteria. Applied and Environmental Microbiology, 1993, 59, 1452-1460.	1.4	25
72	BioRock: new experiments and hardware to investigate microbeâ€“mineral interactions in space. International Journal of Astrobiology, 2018, 17, 303-313.	0.9	22

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73	Activity and stability of a complex bacterial soil community under simulated Martian conditions. International Journal of Astrobiology, 2005, 4, 135.	0.9	21
74	Production of reactive oxygen species from abraded silicates. Implications for the reactivity of the Martian soil. Earth and Planetary Science Letters, 2017, 473, 113-121.	1.8	21
75	Microbially-Enhanced Vanadium Mining and Bioremediation Under Micro- and Mars Gravity on the International Space Station. Frontiers in Microbiology, 2021, 12, 641387.	1.5	20
76	Benthic decomposition of Zostera marina roots: a controlled laboratory experiment. Journal of Experimental Marine Biology and Ecology, 2004, 313, 105-124.	0.7	19
77	Comparison of the mineralogical effects of an experimental forest fire on a goethite/ferrihydrite soil with a topsoil that contains hematite, maghemite and goethite. Clay Minerals, 2009, 44, 239-247.	0.2	19
78	Formation of Dimethylsulfide and Methanethiol from Methoxylated Aromatic Compounds and Inorganic Sulfide by Newly Isolated Anaerobic Bacteria. , 1993, , 782-795.		19
79	On the usage of classical nucleation theory in quantification of the impact of bacterial INP on weather and climate. Atmospheric Environment, 2016, 139, 230-240.	1.9	16
80	Effects of a Campylobacter jejuni Infection on the Development of the Intestinal Microflora of Broiler Chickens. Poultry Science, 2006, 85, 579-587.	1.5	14
81	How sulfur beats iron. Science, 2014, 344, 974-975.	6.0	14
82	Activity and diversity of methane-oxidizing bacteria along a Norwegian sub-Arctic glacier forefield. FEMS Microbiology Ecology, 2018, 94, .	1.3	13
83	The Sheaths of Methanospirillum Are Made of a New Type of Amyloid Protein. Frontiers in Microbiology, 2018, 9, 2729.	1.5	13
84	Microbial Community Composition in Crude Oils and Asphalts from the Kurdistan Region of Iraq. Geomicrobiology Journal, 2020, 37, 635-652.	1.0	13
85	Sulfur and Oxygen Isotope Fractionation During Bacterial Sulfur Disproportionation Under Anaerobic Haloalkaline Conditions. Geomicrobiology Journal, 2016, 33, 934-941.	1.0	12
86	NMR and EPR Studies of Free-Radical Intermediates from Experiments Mimicking the Winds on Mars: A Sink for Methane and Other Gases. Journal of Physical Chemistry C, 2016, 120, 26138-26149.	1.5	11
87	Structure and Protein-Protein Interactions of Ice Nucleation Proteins Drive Their Activity. Frontiers in Microbiology, 0, 13, .	1.5	11
88	Light on windy nights on Mars: A study of saltation-mediated ionization of argon in a Mars-like atmosphere. Icarus, 2019, 332, 14-18.	1.1	10
89	Silicates Eroded under Simulated Martian Conditions Effectively Kill Bacteriaâ€"A Challenge for Life on Mars. Frontiers in Microbiology, 2017, 8, 1709.	1.5	9
90	Greenhouse gas capture by triboelectric charging. Chemical Physics Letters, 2021, 783, 139069.	1.2	9

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91	Microbial abundance in the deep subsurface of the Chesapeake Bay impact crater: Relationship to lithology and impact processes. , 2009, , .		8
92	Microbial production of volatile sulphur compounds in the large intestine of pigs fed two different diets. Journal of Applied Microbiology, 2012, 113, 143-154.	1.4	8
93	Impact of bacterial ice nucleating particles on weather predicted by a numerical weather prediction model. Atmospheric Environment, 2017, 170, 33-44.	1.9	8
94	Anaerobic Bacteria and Archaea in Cold Ecosystems. , 2008, , 103-119.		6
95	Methylated silicates may explain the release of chlorinated methane from Martian soil. Earth and Planetary Science Letters, 2016, 433, 226-231.	1.8	6
96	Assessment of the Forward Contamination Risk of Mars by Clean Room Isolates from Space-Craft Assembly Facilities through Aeolian Transport - a Model Study. Origins of Life and Evolution of Biospheres, 2017, 47, 203-214.	0.8	6
97	Cow Farmersâ€™ Homes Host More Diverse Airborne Bacterial Communities Than Pig Farmersâ€™ Homes and Suburban Homes. Frontiers in Microbiology, 0, 13, .	1.5	6
98	Seasonal Variation of the Atmospheric Bacterial Community in the Greenlandic High Arctic Is Influenced by Weather Events and Local and Distant Sources. Frontiers in Microbiology, 0, 13, .	1.5	6
99	Aeolian comminution experiments revealing surprising sandball mineral aggregates. Aeolian Research, 2014, 13, 77-80.	1.1	5
100	The Exo-Life Finder (ELF) telescope: New strategies for direct detection of exoplanet biosignatures and technosignatures. , 2018, , .		5
101	Draft genome sequence of Bacillus azotoformans MEV2011, a (Co-) denitrifying strain unable to grow with oxygen. Standards in Genomic Sciences, 2014, 9, 23.	1.5	4
102	Draft genome sequence of Bacillus azotoformans MEV2011, a (Co-) denitrifying strain unable to grow with oxygen. Standards in Genomic Sciences, 2015, 10, 4.	1.5	4
103	Identity and hydrocarbon degradation activity of enriched microorganisms from natural oil and asphalt seeps in the Kurdistan Region of Iraq (KRI). Biodegradation, 2021, 32, 251-271.	1.5	4
104	Subglacial and Proglacial Ecosystem Responses to Climate Change. , 2011, , .		3
105	Respiration Measurements of Individual Tardigrades of the Species Richtersius cf coronifer as a Function of Temperature and Salinity and Termination of Anhydrobiosis. Astrobiology, 2021, 21, 853-865.	1.5	3
106	Physical and chemical mechanisms that impact the detection, identification, and quantification of organic matter and the survival of microorganisms on the Martian surface â€“ a review. International Journal of Astrobiology, 2022, 21, 356-379.	0.9	3
107	A method for studying the metabolic activity of individual tardigrades by measuring oxygen uptake using micro-respirometry. Journal of Experimental Biology, 2020, 223, .	0.8	2
108	Properties relevant to atmospheric dispersal of the ice-nucleation active Pseudomonas syringae strain R10.79 isolated from rain water. Aerobiologia, 2021, 37, 225-241.	0.7	2

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109	Desulfospira Finster, Liesack and Tindall 1997e, 1274VP (Effective publication: Finster, Liesack and) Tj ETQq1 1 0.784314 rgBT /Overlo		2
110	DEGRADATION OF CARBAZOLE, DIBENZOTHIOPHENE, AND DIBENZOFURAN AT LOW TEMPERATURE BY PSEUDOMONAS SP. STRAIN C3211. Environmental Toxicology and Chemistry, 2003, 22, 730.	2.2	2
111	Concentration of volatile sulphur-containing compounds along the gastrointestinal tract of pigs fed a high-sulphur or a low-sulphur diet. Livestock Science, 2010, 133, 128-131.	0.6	1
112	Cloud and Atmosphere Metagenomics. , 2015, , 82-87.		1
113	Methane as a reddish coating agent. Icarus, 2022, , 115023.	1.1	1
114	The use of complex microbial soil communities in Mars simulation experiments. International Journal of Astrobiology, 2008, 7, 169-176.	0.9	0
115	Er vi alene i universet? - fra Jens Lyn til Astrobiologi. GeologiskNyt, 2009, , .	0.0	0
116	Cloud and Atmosphere Metagenomics. , 2012, , 1-7.		0