Christa Schleper

List of Publications by Year in Descending Order

135 papers	14,681 citations	62 h-index	121 g-index
149 ext. papers	17,430 ext. citations	8.3 avg, IF	6.44 L-index

#	Paper	IF	Citations
135	Comment on"A Critical Review on Nitrous Oxide Production by Ammonia-Oxidizing Archaea" by Lan Wu, Xueming Chen, Wei Wei, Yiwen Liu, Dongbo Wang, and Bing-Jie Ni. *Environmental Science & Technology*, **2021**, 55, 797-798	10.3	3
134	Genomes of Thaumarchaeota from deep sea sediments reveal specific adaptations of three independently evolved lineages. *ISME Journal*, **2021**, 15, 2792-2808	11.9	6
133	Comparative CRISPR type III-based knockdown of essential genes in hyperthermophilic and the evasion of lethal gene silencing. *RNA Biology*, **2021**, 18, 421-434	4.8	5
132	Linking 16S rRNA Gene Classification to Gene Taxonomy Reveals Environmental Distribution of Ammonia-Oxidizing Archaeal Clades in Peatland Soils. *MSystems*, **2021**, e0054621	7.6	0
131	Copper limiting threshold in the terrestrial ammonia oxidizing archaeon Nitrososphaera viennensis. *Research in Microbiology*, **2020**, 171, 134-142	4	3
130	Ancestral Reconstructions Decipher Major Adaptations of Ammonia-Oxidizing Archaea upon Radiation into Moderate Terrestrial and Marine Environments. *MBio*, **2020**, 11,	7.8	10
129	Genome wide transcriptomic analysis of the soil ammonia oxidizing archaeon Nitrososphaera viennensis upon exposure to copper limitation. *ISME Journal*, **2020**, 14, 2659-2674	11.9	5
128	Geochemical transition zone powering microbial growth in subsurface sediments. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 32617-32626	11.5	12
127	Heavily Armed Ancestors: CRISPR Immunity and Applications in Archaea with a Comparative Analysis of CRISPR Types in Sulfolobales. *Biomolecules*, **2020**, 10,	5.9	3
126	Nitrogen Isotope Fractionation During Archaeal Ammonia Oxidation: Coupled Estimates From Measurements of Residual Ammonium and Accumulated Nitrite. *Frontiers in Microbiology*, **2020**, 11, 1710	5.7	5
125	Metagenomes from Coastal Marine Sediments Give Insights into the Ecological Role and Cellular Features of - and. *MBio*, **2019**, 10,	7.8	9
124	Archaeal nitrification is a key driver of high nitrous oxide emissions from arctic peatlands. *Soil Biology and Biochemistry*, **2019**, 137, 107539	7.5	18
123	Ammonia Oxidation by the Arctic Terrestrial Thaumarchaeote Nitrosocosmicus arcticus Is Stimulated by Increasing Temperatures. *Frontiers in Microbiology*, **2019**, 10, 1571	5.7	21
122	CRISPR-mediated gene silencing reveals involvement of the archaeal S-layer in cell division and virus infection. *Nature Communications*, **2019**, 10, 4797	17.4	22
121	Indications for a moonlighting function of translation factor aIF5A in the crenarchaeum Sulfolobus solfataricus. *RNA Biology*, **2019**, 16, 675-685	4.8	6
120	Exploring the microbial biotransformation of extraterrestrial material on nanometer scale. *Scientific Reports*, **2019**, 9, 18028	4.9	9
119	Biological methane production under putative Enceladus-like conditions. *Nature Communications*, **2018**, 9, 748	17.4	49

118	Unifying the global phylogeny and environmental distribution of ammonia-oxidising archaea based on amoA genes. *Nature Communications*, **2018**, 9, 1517	17.4	131
117	Significance of dark CO2 fixation in arctic soils. *Soil Biology and Biochemistry*, **2018**, 119, 11-21	7.5	40
116	Nitrosocaldus cavascurensis, an Ammonia Oxidizing, Extremely Thermophilic Archaeon with a Highly Mobile Genome. *Frontiers in Microbiology*, **2018**, 9, 28	5.7	51
115	Holistic Assessment of Rumen Microbiome Dynamics through Quantitative Metatranscriptomics Reveals Multifunctional Redundancy during Key Steps of Anaerobic Feed Degradation. *MSystems*, **2018**, 3,	7.6	37
114	Microbial diversity of a closed salt lagoon in the Puertecitos area, Upper Gulf of California. *Ciencias Marinas*, **2018**, 44, 71-90	1.7	5
113	Nitrososphaerales **2018**, 1-4		3
112	Intact polar lipid and core lipid inventory of the hydrothermal vent methanogens Methanocaldococcus villosus and Methanothermococcus okinawensis. *Organic Geochemistry*, **2018**, 126, 33-42	3.1	14
111	A plant-microbe interaction framework explaining nutrient effects on primary production. *Nature Ecology and Evolution*, **2018**, 2, 1588-1596	12.3	49
110	Simulating putative Enceladus-like conditions: The possibility of biological methane production on Saturn icy moon. *Proceedings of the International Astronomical Union*, **2018**, 14, 219-221	0.1	
109	Chemotaxonomic characterisation of the thaumarchaeal lipidome. *Environmental Microbiology*, **2017**, 19, 2681-2700	5.2	75
108	Candidatus Cenarchaeum **2017**, 1-4		0
107	Das Archaeon Nitrososphaera viennensis. *Biologie in Unserer Zeit*, **2017**, 47, 320-324	0.1	
106	A hydrophobic ammonia-oxidizing archaeon of the Nitrosocosmicus clade isolated from coal tar-contaminated sediment. *Environmental Microbiology Reports*, **2016**, 8, 983-992	3.7	61
105	Proteomics and comparative genomics of Nitrososphaera viennensis reveal the core genome and adaptations of archaeal ammonia oxidizers. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E7937-E7946	11.5	103
104	Pathways and key intermediates required for obligate aerobic ammonia-dependent chemolithotrophy in bacteria and Thaumarchaeota. *ISME Journal*, **2016**, 10, 1836-45	11.9	188
103	Physiological and genomic characterization of two novel marine thaumarchaeal strains indicates niche differentiation. *ISME Journal*, **2016**, 10, 1051-63	11.9	108
102	Phylogenetic and genomic analysis of Methanomassiliicoccales in wetlands and animal intestinal tracts reveals clade-specific habitat preferences. *FEMS Microbiology Ecology*, **2016**, 92,	4.3	78
101	Back to the Future of Soil Metagenomics. *Frontiers in Microbiology*, **2016**, 7, 73	5.7	82

100	Nitrososphaeraceae **2016**, 1-2		2
99	Plant-derived compounds stimulate the decomposition of organic matter in arctic permafrost soils. *Scientific Reports*, **2016**, 6, 25607	4.9	64
98	Efficient CRISPR-Mediated Post-Transcriptional Gene Silencing in a Hyperthermophilic Archaeon Using Multiplexed crRNA Expression. *G3: Genes, Genomes, Genetics*, **2016**, 6, 3161-3168	3.2	18
97	Nitrososphaera **2016**, 1-10		12
96	Nitrososphaeria **2016**, 1-8		11
95	Highlights aus der dritten Dom□e□die Archaea. *BioSpektrum*, **2015**, 21, 44-45	0.1	
94	Complex archaea that bridge the gap between prokaryotes and eukaryotes. *Nature*, **2015**, 521, 173-179	50.4	726
93	Intestinal Epithelial Cell Tyrosine Kinase 2 Transduces IL-22 Signals To Protect from Acute Colitis. *Journal of Immunology*, **2015**, 195, 5011-24	5.3	33
92	The effect of warming on the vulnerability of subducted organic carbon in arctic soils. *Soil Biology and Biochemistry*, **2015**, 90, 19-29	7.5	50
91	Assessing the Ecophysiology of Methanogens in the Context of Recent Astrobiological and Planetological Studies. *Life*, **2015**, 5, 1652-86	3	45
90	Intestinal Microbiota Signatures Associated with Inflammation History in Mice Experiencing Recurring Colitis. *Frontiers in Microbiology*, **2015**, 6, 1408	5.7	67
89	Longitudinal study of murine microbiota activity and interactions with the host during acute inflammation and recovery. *ISME Journal*, **2014**, 8, 1101-14	11.9	121
88	Gene expression of lactobacilli in murine forestomach biofilms. *Microbial Biotechnology*, **2014**, 7, 347-59	6.3	24
87	Distinct microbial communities associated with buried soils in the Siberian tundra. *ISME Journal*, **2014**, 8, 841-53	11.9	111
86	Aerobic nitrous oxide production through N-nitrosating hybrid formation in ammonia-oxidizing archaea. *ISME Journal*, **2014**, 8, 1135-46	11.9	207
85	Variability of the transporter gene complement in ammonia-oxidizing archaea. *Trends in Microbiology*, **2014**, 22, 665-75	12.4	56
84	Nitrososphaera viennensis gen. nov., sp. nov., an aerobic and mesophilic, ammonia-oxidizing archaeon from soil and a member of the archaeal phylum Thaumarchaeota. *International Journal of Systematic and Evolutionary Microbiology*, **2014**, 64, 2738-2752	2.2	174
83	Site- and horizon-specific patterns of microbial community structure and enzyme activities in permafrost-affected soils of Greenland. *Frontiers in Microbiology*, **2014**, 5, 541	5.7	62

82	Draft Genome Sequence of the Growth-Promoting Endophyte Paenibacillus sp. P22, Isolated from Populus. *Genome Announcements*, **2014**, 2,		3
81	Type I interferons have opposing effects during the emergence and recovery phases of colitis. *European Journal of Immunology*, **2014**, 44, 2749-60	6.1	23
80	CRISPR-mediated targeted mRNA degradation in the archaeon Sulfolobus solfataricus. *Nucleic Acids Research*, **2014**, 42, 5280-8	20.1	81
79	Microbial community structure and functioning in marine sediments associated with diffuse hydrothermal venting assessed by integrated meta-omics. *Environmental Microbiology*, **2014**, 16, 2699-710	5.2	58
78	Biochar decelerates soil organic nitrogen cycling but stimulates soil nitrification in a temperate arable field trial. *PLoS ONE*, **2014**, 9, e86388	3.7	178
77	The Phylum Thaumarchaeota **2014**, 347-362		17
76	Metagenomics of Kamchatkan hot spring filaments reveal two new major (hyper)thermophilic lineages related to Thaumarchaeota. *Research in Microbiology*, **2013**, 164, 425-38	4	28
75	Responses of the terrestrial ammonia-oxidizing archaeon Ca. Nitrososphaera viennensis and the ammonia-oxidizing bacterium Nitrosospira multiformis to nitrification inhibitors. *FEMS Microbiology Letters*, **2013**, 344, 121-9	2.9	135
74	Seasonal and vertical distribution of putative ammonia-oxidizing thaumarchaeotal communities in an oligotrophic lake. *FEMS Microbiology Ecology*, **2013**, 83, 515-26	4.3	25
73	CRISPR-mediated defense mechanisms in the hyperthermophilic archaeal genus Sulfolobus. *RNA Biology*, **2013**, 10, 671-8	4.8	19
72	Nitrification rates in Arctic soils are associated with functionally distinct populations of ammonia-oxidizing archaea. *ISME Journal*, **2013**, 7, 1620-31	11.9	131
71	Archaea in biogeochemical cycles. *Annual Review of Microbiology*, **2013**, 67, 437-57	17.5	251
70	Unexpectedly broad target recognition of the CRISPR-mediated virus defence system in the archaeon Sulfolobus solfataricus. *Nucleic Acids Research*, **2013**, 41, 10509-17	20.1	51
69	Methylotrophic methanogenic Thermoplasmata implicated in reduced methane emissions from bovine rumen. *Nature Communications*, **2013**, 4, 1428	17.4	215
68	Temporal and spatial coexistence of archaeal and bacterial amoA genes and gene transcripts in Lake Lucerne. *Archaea*, **2013**, 2013, 289478	2	23
67	Quantitative and phylogenetic study of the Deep Sea Archaeal Group in sediments of the Arctic mid-ocean spreading ridge. *Frontiers in Microbiology*, **2013**, 4, 299	5.7	36
66	Ammonia-oxidizing archaea as main drivers of nitrification in cold-water sponges. *Environmental Microbiology*, **2012**, 14, 909-23	5.2	105
65	Metatranscriptomics of the marine sponge Geodia barretti: tackling phylogeny and function of its microbial community. *Environmental Microbiology*, **2012**, 14, 1308-24	5.2	102

64	Intact polar and core glycerol dibiphytanyl glycerol tetraether lipids of group I.1a and I.1b thaumarchaeota in soil. *Applied and Environmental Microbiology*, **2012**, 78, 6866-74	4.8	126
63	The genome of the ammonia-oxidizing Candidatus Nitrososphaera gargensis: insights into metabolic versatility and environmental adaptations. *Environmental Microbiology*, **2012**, 14, 3122-45	5.2	239
62	Metagenomic analysis of ammonia-oxidizing archaea affiliated with the soil group. *Frontiers in Microbiology*, **2012**, 3, 208	5.7	32
61	Phylotype-level 16S rRNA analysis reveals new bacterial indicators of health state in acute murine colitis. *ISME Journal*, **2012**, 6, 2091-106	11.9	208
60	Correlating microbial community profiles with geochemical data in highly stratified sediments from the Arctic Mid-Ocean Ridge. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, E2846-55	11.5	198
59	Preparation of high-molecular weight DNA and metagenomic libraries from soils and hot springs. *Methods in Enzymology*, **2011**, 496, 319-44	1.7	10
58	The Thaumarchaeota: an emerging view of their phylogeny and ecophysiology. *Current Opinion in Microbiology*, **2011**, 14, 300-6	7.9	403
57	Sulfur-oxidizing chemolithotrophic proteobacteria dominate the microbiota in high arctic thermal springs on Svalbard. *Astrobiology*, **2011**, 11, 665-78	3.7	28
56	A thaumarchaeal provirus testifies for an ancient association of tailed viruses with archaea. *Biochemical Society Transactions*, **2011**, 39, 82-8	5.1	41
55	The Double-RNA Approach to Simultaneously Assess the Structure and Function of a Soil Microbial Community **2011**, 587-596		7
54	In vivo activity of CRISPR-mediated virus defence in a hyperthermophilic archaeon. *Molecular Microbiology*, **2011**, 80, 481-91	4.1	83
53	UV-inducible DNA exchange in hyperthermophilic archaea mediated by type IV pili. *Molecular Microbiology*, **2011**, 82, 807-17	4.1	87
52	Nitrososphaera viennensis, an ammonia oxidizing archaeon from soil. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 8420-5	11.5	644
51	Diversity and abundance of Korarchaeota in terrestrial hot springs of Iceland and Kamchatka. *ISME Journal*, **2010**, 4, 346-56	11.9	50
50	Ammonia oxidation: different niches for bacteria and archaea?. *ISME Journal*, **2010**, 4, 1092-4	11.9	129
49	Homologues of nitrite reductases in ammonia-oxidizing archaea: diversity and genomic context. *Environmental Microbiology*, **2010**, 12, 1075-88	5.2	108
48	Ammonia-oxidising archaea--physiology, ecology and evolution. *Advances in Microbial Physiology*, **2010**, 57, 1-41	4.4	191
47	Distinct gene set in two different lineages of ammonia-oxidizing archaea supports the phylum Thaumarchaeota. *Trends in Microbiology*, **2010**, 18, 331-40	12.4	390

46	"Hot standards" for the thermoacidophilic archaeon Sulfolobus solfataricus. *Extremophiles*, **2010**, 14, 119-42	3	46
45	Reactions to UV damage in the model archaeon Sulfolobus solfataricus. *Biochemical Society Transactions*, **2009**, 37, 36-41	5.1	30
44	Dynamics and functional relevance of ammonia-oxidizing archaea in two agricultural soils. *Environmental Microbiology*, **2009**, 11, 446-56	5.2	247
43	Complex nitrogen cycling in the sponge Geodia barretti. *Environmental Microbiology*, **2009**, 11, 2228-43	5.2	225
42	Four newly isolated fuselloviruses from extreme geothermal environments reveal unusual morphologies and a possible interviral recombination mechanism. *Environmental Microbiology*, **2009**, 11, 2849-62	5.2	75
41	SulfoSYS (Sulfolobus Systems Biology): towards a silicon cell model for the central carbohydrate metabolism of the archaeon Sulfolobus solfataricus under temperature variation. *Biochemical Society Transactions*, **2009**, 37, 58-64	5.1	25
40	The influence of soil pH on the diversity, abundance and transcriptional activity of ammonia oxidizing archaea and bacteria. *Environmental Microbiology*, **2008**, 10, 2966-78	5.2	890
39	UV-inducible cellular aggregation of the hyperthermophilic archaeon Sulfolobus solfataricus is mediated by pili formation. *Molecular Microbiology*, **2008**, 70, 938-52	4.1	115
38	Nitrification in terrestrial hot springs of Iceland and Kamchatka. *FEMS Microbiology Ecology*, **2008**, 64, 167-74	4.3	138
37	Simultaneous assessment of soil microbial community structure and function through analysis of the meta-transcriptome. *PLoS ONE*, **2008**, 3, e2527	3.7	558
36	Distribution of Crenarchaeota representatives in terrestrial hot springs of Russia and Iceland. *Applied and Environmental Microbiology*, **2008**, 74, 7620-8	4.8	50
35	Elucidating the transcription cycle of the UV-inducible hyperthermophilic archaeal virus SSV1 by DNA microarrays. *Virology*, **2007**, 365, 48-59	3.6	53
34	Response of the hyperthermophilic archaeon Sulfolobus solfataricus to UV damage. *Journal of Bacteriology*, **2007**, 189, 8708-18	3.5	110
33	Pathways of carbon assimilation and ammonia oxidation suggested by environmental genomic analyses of marine Crenarchaeota. *PLoS Biology*, **2006**, 4, e95	9.7	447
32	Analysis of the first genome fragment from the marine sponge-associated, novel candidate phylum Poribacteria by environmental genomics. *Environmental Microbiology*, **2006**, 8, 612-24	5.2	54
31	Genomic analysis of the uncultivated marine crenarchaeote Cenarchaeum symbiosum. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 18296-301	11.5	369
30	The Microbial Soil Flora: Novel Approaches for Accessing the Phylogenetic and Physiological Diversity of Prokaryotes **2006**, 407-424		2
29	Regulation of expression of the arabinose and glucose transporter genes in the thermophilic archaeon Sulfolobus solfataricus. *Extremophiles*, **2006**, 10, 383-91	3	43

28	Novel genes for nitrite reductase and Amo-related proteins indicate a role of uncultivated mesophilic crenarchaeota in nitrogen cycling. *Environmental Microbiology*, **2005**, 7, 1985-95	5.2	674
27	Genomic studies of uncultivated archaea. *Nature Reviews Microbiology*, **2005**, 3, 479-88	22.2	451
26	Characterization of large-insert DNA libraries from soil for environmental genomic studies of Archaea. *Environmental Microbiology*, **2004**, 6, 970-80	5.2	88
25	Acidobacteria form a coherent but highly diverse group within the bacterial domain: evidence from environmental genomics. *Molecular Microbiology*, **2003**, 50, 563-75	4.1	208
24	A reporter gene system for the hyperthermophilic archaeon Sulfolobus solfataricus based on a selectable and integrative shuttle vector. *Molecular Microbiology*, **2003**, 48, 1241-52	4.1	121
23	Diversity and abundance of Crenarchaeota in terrestrial habitats studied by 16S RNA surveys and real time PCR. *Environmental Microbiology*, **2003**, 5, 787-97	5.2	361
22	The Impact of Non-cultivated Biodiversity on Enzyme Discovery and Evolution. *Biocatalysis and Biotransformation*, **2003**, 21, 87-91	2.5	10
21	Metagenome□ challenging source of enzyme discovery. *Journal of Molecular Catalysis B: Enzymatic*, **2002**, 19-20, 13-19		66
20	Diversity of Archaea in hypersaline environments characterized by molecular-phylogenetic and cultivation studies. *Extremophiles*, **2002**, 6, 267-74	3	101
19	First insight into the genome of an uncultivated crenarchaeote from soil. *Environmental Microbiology*, **2002**, 4, 603-11	5.2	144
18	High spontaneous mutation rate in the hyperthermophilic archaeon Sulfolobus solfataricus is mediated by transposable elements. *Journal of Bacteriology*, **2000**, 182, 2574-81	3.5	104
17	Diversity of radA genes from cultured and uncultured archaea: comparative analysis of putative RadA proteins and their use as a phylogenetic marker. *Journal of Bacteriology*, **1999**, 181, 907-15	3.5	46
16	Genetic requirements for the function of the archaeal virus SSV1 in Sulfolobus solfataricus: construction and testing of viral shuttle vectors. *Genetics*, **1999**, 152, 1397-405	4	79
15	Dibiphytanyl ether lipids in nonthermophilic crenarchaeotes. *Applied and Environmental Microbiology*, **1998**, 64, 1133-8	4.8	134
14	Genomic analysis reveals chromosomal variation in natural populations of the uncultured psychrophilic archaeon Cenarchaeum symbiosum. *Journal of Bacteriology*, **1998**, 180, 5003-9	3.5	117
13	Complete nucleotide sequence of the Sulfolobus islandicus multicopy plasmid pRN1. *Plasmid*, **1996**, 35, 141-4	3.3	58
12	Transformation of the extremely thermoacidophilic archaeon Sulfolobus solfataricus via a self-spreading vector. *FEMS Microbiology Letters*, **1996**, 137, 31-5	2.9	38
11	Viruses, plasmids and other genetic elements of thermophilic and hyperthermophilic Archaea. *FEMS Microbiology Reviews*, **1996**, 18, 225-36	15.1	113

10	Life at extremely low pH. *Nature*, **1995**, 375, 741-2	50.4	102
9	An insertion element of the extremely thermophilic archaeon Sulfolobus solfataricus transposes into the endogenous beta-galactosidase gene. *Molecular Genetics and Genomics*, **1994**, 243, 91-6		54
8	Screening for Sulfolobales, their Plasmids and their Viruses in Icelandic Solfataras. *Systematic and Applied Microbiology*, **1993**, 16, 609-628	4.2	176
7	Nucleotide sequence, transcription and phylogeny of the gene encoding the superoxide dismutase of Sulfolobus acidocaldarius. *Biochimica Et Biophysica Acta Gene Regulatory Mechanisms*, **1993**, 1174, 95-8		24
6	Complete nucleotide sequence of the virus SSV1 of the archaebacterium Sulfolobus shibatae. *Virology*, **1991**, 185, 242-50	3.6	139
5	Phylogeny of DNA-Dependent RNA Polymerases: Testimony for the Origin of Eukaryotes **1991**, 321-332		7
4	Environmental Genomics: A Novel Tool for Study of Uncultivated Microorganisms45-57		
3	Distribution and Activity of Ammonia-Oxidizing Archaea in Natural Environments157-178		15
2	Genomes of Thaumarchaeota from deep sea sediments reveal specific adaptations of three independently evolved lineages		3
1	Ancestral reconstructions decipher major adaptations of ammonia oxidizing archaea upon radiation into moderate terrestrial and marine environments		1