

Hiroyuki Imachi

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111
papers

5,329
citations

42
h-index

71
g-index

114
ext. papers

6,516
ext. citations

4.8
avg, IF

5.24
L-index

#	Paper	IF	Citations
111	Anaerolinea thermolimosa sp. nov., Levilinea saccharolytica gen. nov., sp. nov. and Leptolinea tardivitalis gen. nov., sp. nov., novel filamentous anaerobes, and description of the new classes Anaerolineae classis nov. and Caldilineae classis nov. in the bacterial phylum Chloroflexi. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2006 , 56, 1331-1340	2.2	437
110	DEEP BIOSPHERE. Exploring deep microbial life in coal-bearing sediment down to ~2.5 km below the ocean floor. <i>Science</i> , 2015 , 349, 420-4	33.3	253
109	Bellilinea caldifistulae gen. nov., sp. nov. and Longilinea arvoryzae gen. nov., sp. nov., strictly anaerobic, filamentous bacteria of the phylum Chloroflexi isolated from methanogenic propionate-degrading consortia. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2007 , 57, 2299-2306	2.2	246
108	Isolation of an archaeon at the prokaryote-eukaryote interface. <i>Nature</i> , 2020 , 577, 519-525	50.4	217
107	Diversity, localization, and physiological properties of filamentous microbes belonging to Chloroflexi subphylum I in mesophilic and thermophilic methanogenic sludge granules. <i>Applied and Environmental Microbiology</i> , 2005 , 71, 7493-503	4.8	189
106	Methanocella paludicola gen. nov., sp. nov., a methane-producing archaeon, the first isolate of the lineage TRice Cluster I† and proposal of the new archaeal order Methanocellales ord. nov. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2008 , 58, 929-36	2.2	185
105	Pelotomaculum thermopropionicum gen. nov., sp. nov., an anaerobic, thermophilic, syntrophic propionate-oxidizing bacterium. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2002 , 52, 1729-1735	2.2	150
104	Non-sulfate-reducing, syntrophic bacteria affiliated with desulfotomaculum cluster I are widely distributed in methanogenic environments. <i>Applied and Environmental Microbiology</i> , 2006 , 72, 2080-91	4.8	147
103	Methanolinea tarda gen. nov., sp. nov., a methane-producing archaeon isolated from a methanogenic digester sludge. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2008 , 58, 294-301	2.2	146
102	Effective partial nitrification to nitrite by down-flow hanging sponge reactor under limited oxygen condition. <i>Water Research</i> , 2007 , 41, 295-302	12.5	114
101	Pelotomaculum thermopropionicum gen. nov., sp. nov., an anaerobic, thermophilic, syntrophic propionate-oxidizing bacterium. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2002 , 52, 1729-1735	2.2	110
100	Cultivation and in situ detection of a thermophilic bacterium capable of oxidizing propionate in syntrophic association with hydrogenotrophic methanogens in a thermophilic methanogenic granular sludge. <i>Applied and Environmental Microbiology</i> , 2000 , 66, 3608-15	4.8	100
99	Isolation of key methanogens for global methane emission from rice paddy fields: a novel isolate affiliated with the clone cluster rice cluster I. <i>Applied and Environmental Microbiology</i> , 2007 , 73, 4326-31	4.8	99
98	Cultivation of methanogenic community from subseafloor sediments using a continuous-flow bioreactor. <i>ISME Journal</i> , 2011 , 5, 1913-25	11.9	89
97	Pelotomaculum terephthalicum sp. nov. and Pelotomaculum isophthalicum sp. nov.: two anaerobic bacteria that degrade phthalate isomers in syntrophic association with hydrogenotrophic methanogens. <i>Archives of Microbiology</i> , 2006 , 185, 172-82	3	85
96	Improved in situ hybridization efficiency with locked-nucleic-acid-incorporated DNA probes. <i>Applied and Environmental Microbiology</i> , 2006 , 72, 5311-7	4.8	84
95	Microbial diversity in deep-sea methane seep sediments presented by SSU rRNA gene tag sequencing. <i>Microbes and Environments</i> , 2012 , 27, 382-90	2.6	79

94	Identification and cultivation of anaerobic, syntrophic long-chain fatty acid-degrading microbes from mesophilic and thermophilic methanogenic sludges. <i>Applied and Environmental Microbiology</i> , 2007 , 73, 1332-40	4.8	79
93	Methanoregula formicica sp. nov., a methane-producing archaeon isolated from methanogenic sludge. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2011 , 61, 53-59	2.2	78
92	Phylogenetic and enzymatic diversity of deep seafloor aerobic microorganisms in organics- and methane-rich sediments off Shimokita Peninsula. <i>Extremophiles</i> , 2008 , 12, 519-27	3	78
91	Methanolinea mesophila sp. nov., a hydrogenotrophic methanogen isolated from rice field soil, and proposal of the archaeal family Methanoregulaceae fam. nov. within the order Methanomicrobiales. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2012 , 62, 1389-1395	2.2	78
90	Quantification of mcrA by fluorescent PCR in methanogenic and methanotrophic microbial communities. <i>FEMS Microbiology Ecology</i> , 2008 , 64, 240-7	4.3	77
89	Diversity of anaerobic microorganisms involved in long-chain fatty acid degradation in methanogenic sludges as revealed by RNA-based stable isotope probing. <i>Applied and Environmental Microbiology</i> , 2007 , 73, 4119-27	4.8	76
88	Thermodesulfovibrio aggregans sp. nov. and Thermodesulfovibrio thiophilus sp. nov., anaerobic, thermophilic, sulfate-reducing bacteria isolated from thermophilic methanogenic sludge, and emended description of the genus Thermodesulfovibrio. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2008 , 58, 2541-8	2.2	75
87	Pelotomaculum propionicicum sp. nov., an anaerobic, mesophilic, obligately syntrophic, propionate-oxidizing bacterium. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2007 , 57, 1487-1492	2.2	72
86	Identification and isolation of anaerobic, syntrophic phthalate isomer-degrading microbes from methanogenic sludges treating wastewater from terephthalate manufacturing. <i>Applied and Environmental Microbiology</i> , 2004 , 70, 1617-26	4.8	71
85	Syntrophomonas palmitatica sp. nov., an anaerobic, syntrophic, long-chain fatty-acid-oxidizing bacterium isolated from methanogenic sludge. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2007 , 57, 2137-2142	2.2	69
84	Tepidanaerobacter syntrophicus gen. nov., sp. nov., an anaerobic, moderately thermophilic, syntrophic alcohol- and lactate-degrading bacterium isolated from thermophilic digested sludges. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2006 , 56, 1621-1629	2.2	65
83	Reconstruction and regulation of the central catabolic pathway in the thermophilic propionate-oxidizing syntroph Pelotomaculum thermopropionicum. <i>Journal of Bacteriology</i> , 2006 , 188, 202-10	3.5	63
82	Cultivation of methanogens under low-hydrogen conditions by using the coculture method. <i>Applied and Environmental Microbiology</i> , 2009 , 75, 4892-6	4.8	60
81	Methanocella arvoryzae sp. nov., a hydrogenotrophic methanogen isolated from rice field soil. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2010 , 60, 2918-2923	2.2	59
80	Methanolobus profundus sp. nov., a methylotrophic methanogen isolated from deep subsurface sediments in a natural gas field. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2009 , 59, 714-8	2.2	59
79	Isolation and characterization of a thermophilic, obligately anaerobic and heterotrophic marine Chloroflexi bacterium from a Chloroflexi-dominated microbial community associated with a Japanese shallow hydrothermal system, and proposal for Thermomarinilinea lacunofontalis gen. nov., sp. nov. <i>Microbes and Environments</i> , 2013 , 28, 228-35	2.6	52
78	Microbial diversity and methanogenic potential in a high temperature natural gas field in Japan. <i>Extremophiles</i> , 2007 , 11, 453-61	3	52
77	Peptide nucleic acids (PNAs) antisense effect to bacterial growth and their application potentiality in biotechnology. <i>Applied Microbiology and Biotechnology</i> , 2010 , 86, 397-402	5.7	48

76	In situ DNA-hybridization chain reaction (HCR): a facilitated in situ HCR system for the detection of environmental microorganisms. <i>Environmental Microbiology</i> , 2015 , 17, 2532-41	5.2	47
75	Biological oxidation of Mn(II) coupled with nitrification for removal and recovery of minor metals by downflow hanging sponge reactor. <i>Water Research</i> , 2015 , 68, 545-53	12.5	46
74	Deep-biosphere methane production stimulated by geofluids in the Nankai accretionary complex. <i>Science Advances</i> , 2018 , 4, eaao4631	14.3	46
73	Development of 16S rRNA gene-targeted primers for detection of archaeal anaerobic methanotrophs (ANMEs). <i>FEMS Microbiology Letters</i> , 2009 , 297, 31-7	2.9	46
72	Genome sequence of a mesophilic hydrogenotrophic methanogen <i>Methanocella paludicola</i> , the first cultivated representative of the order Methanocellales. <i>PLoS ONE</i> , 2011 , 6, e22898	3.7	45
71	Dating of Dissolved Iodine in Pore Waters from the Gas Hydrate Occurrence Offshore Shimokita Peninsula, Japan: 129I Results from the D/V Chikyu Shakedown Cruise. <i>Resource Geology</i> , 2009 , 59, 359-373	4.7	45
70	A long-term cultivation of an anaerobic methane-oxidizing microbial community from deep-sea methane-seep sediment using a continuous-flow bioreactor. <i>PLoS ONE</i> , 2014 , 9, e105356	3.7	43
69	<i>Methanofollis ethanolicus</i> sp. nov., an ethanol-utilizing methanogen isolated from a lotus field. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2009 , 59, 800-5	2.2	42
68	Molecular characterization of potential nitrogen fixation by anaerobic methane-oxidizing archaea in the methane seep sediments at the number 8 Kumano Knoll in the Kumano Basin, offshore of Japan. <i>Applied and Environmental Microbiology</i> , 2009 , 75, 7153-62	4.8	39
67	Methanogen Diversity in Deep Subsurface Gas-Associated Water at the Minami-Kanto Gas Field in Japan. <i>Geomicrobiology Journal</i> , 2007 , 24, 93-100	2.5	39
66	<i>Pelolinea submarina</i> gen. nov., sp. nov., an anaerobic, filamentous bacterium of the phylum Chloroflexi isolated from subseafloor sediment. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2014 , 64, 812-818	2.2	38
65	Detection of active butyrate-degrading microorganisms in methanogenic sludges by RNA-based stable isotope probing. <i>Applied and Environmental Microbiology</i> , 2008 , 74, 3610-4	4.8	38
64	Evaluation of enzymatic cell treatments for application of CARD-FISH to methanogens. <i>Journal of Microbiological Methods</i> , 2008 , 72, 54-9	2.8	37
63	Visualization of mcr mRNA in a methanogen by fluorescence in situ hybridization with an oligonucleotide probe and two-pass tyramide signal amplification (two-pass TSA-FISH). <i>Journal of Microbiological Methods</i> , 2006 , 66, 521-8	2.8	37
62	<i>Sporotomaculum syntrophicum</i> sp. nov., a novel anaerobic, syntrophic benzoate-degrading bacterium isolated from methanogenic sludge treating wastewater from terephthalate manufacturing. <i>Archives of Microbiology</i> , 2003 , 179, 242-9	3	37
61	sp. nov., an anaerobic, amino-acid-utilizing bacterium isolated from marine subsurface sediment. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2016 , 66, 1293-1300	2.2	36
60	<i>Kosmotoga arenicorallina</i> sp. nov. a thermophilic and obligately anaerobic heterotroph isolated from a shallow hydrothermal system occurring within a coral reef, southern part of the Yaeyama Archipelago, Japan, reclassification of <i>Thermococcoides shengliensis</i> as <i>Kosmotoga shengliensis</i> comb. nov., and emended description of the genus <i>Kosmotoga</i> . <i>Archives of Microbiology</i> , 2010 , 192, 811-9	3	32
59	Production of biogenic manganese oxides coupled with methane oxidation in a bioreactor for removing metals from wastewater. <i>Water Research</i> , 2018 , 130, 224-233	12.5	32

58	Sunxiuqinia faeciviva sp. nov., a facultatively anaerobic organoheterotroph of the Bacteroidetes isolated from deep seafloor sediment. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2013 , 63, 1602-1609	2.2	31
57	Archaeal community compositions at different depths (up to 30 m) of a municipal solid waste landfill in Taiwan as revealed by 16S rDNA cloning analyses. <i>Biotechnology Letters</i> , 2003 , 25, 719-24	3	30
56	Geofilum rubicundum gen. nov., sp. nov., isolated from deep seafloor sediment. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2012 , 62, 1075-1080	2.2	28
55	Fractionation of nitrogen isotopes during amino acid metabolism in heterotrophic and chemolithoautotrophic microbes across Eukarya, Bacteria, and Archaea: Effects of nitrogen sources and metabolic pathways. <i>Organic Geochemistry</i> , 2017 , 111, 101-112	3.1	26
54	Sequence-specific bacterial growth inhibition by peptide nucleic acid targeted to the mRNA binding site of 16S rRNA. <i>Applied Microbiology and Biotechnology</i> , 2009 , 84, 1161-8	5.7	25
53	Hydrogen and carbon isotope systematics in hydrogenotrophic methanogenesis under H ₂ -limited and H ₂ -enriched conditions: implications for the origin of methane and its isotopic diagnosis. <i>Progress in Earth and Planetary Science</i> , 2016 , 3,	3.9	24
52	Variance and potential niche separation of microbial communities in seafloor sediments off Shimokita Peninsula, Japan. <i>Environmental Microbiology</i> , 2016 , 18, 1889-906	5.2	24
51	Sphaerochaeta multiformis sp. nov., an anaerobic, psychrophilic bacterium isolated from seafloor sediment, and emended description of the genus Sphaerochaeta. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2014 , 64, 4147-4154	2.2	23
50	Biogeography of Persephonella in deep-sea hydrothermal vents of the Western Pacific. <i>Frontiers in Microbiology</i> , 2013 , 4, 107	5.7	23
49	Comparative study of seafloor microbial community structures in deeply buried coral fossils and sediment matrices from the challenger mound in the porcupine seamount. <i>Frontiers in Microbiology</i> , 2011 , 2, 231	5.7	23
48	Detection of single copy genes by two-pass tyramide signal amplification fluorescence in situ hybridization (Two-Pass TSA-FISH) with single oligonucleotide probes. <i>Microbes and Environments</i> , 2010 , 25, 15-21	2.6	23
47	Exilispira thermophila gen. nov., sp. nov., an anaerobic, thermophilic spirochaete isolated from a deep-sea hydrothermal vent chimney. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2008 , 58, 2258-65	2.2	23
46	Spirochaeta psychrophila sp. nov., a psychrophilic spirochaete isolated from seafloor sediment, and emended description of the genus Spirochaeta. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2014 , 64, 2798-2804	2.2	22
45	Microbial Community Composition and Functional Capacity in a Terrestrial Ferruginous, Sulfate-Depleted Mud Volcano. <i>Frontiers in Microbiology</i> , 2017 , 8, 2137	5.7	20
44	Biological CO ₂ conversion to acetate in subsurface coal-sand formation using a high-pressure reactor system. <i>Frontiers in Microbiology</i> , 2013 , 4, 361	5.7	20
43	Endemicity of the cosmopolitan mesophilic chemolithoautotroph Sulfurimonas at deep-sea hydrothermal vents. <i>ISME Journal</i> , 2017 , 11, 909-919	11.9	19
42	Nitrogen and Oxygen Isotope Effects of Ammonia Oxidation by Thermophilic Thaumarchaeota from a Geothermal Water Stream. <i>Applied and Environmental Microbiology</i> , 2016 , 82, 4492-504	4.8	19
41	Genomic composition and dynamics among Methanomicrobiales predict adaptation to contrasting environments. <i>ISME Journal</i> , 2017 , 11, 87-99	11.9	19

40	Temperature limits to deep seafloor life in the Nankai Trough subduction zone. <i>Science</i> , 2020 , 370, 1230-1234	33.3	19
39	Variability of seafloor viral abundance at the geographically and geologically distinct continental margins. <i>FEMS Microbiology Ecology</i> , 2014 , 88, 60-8	4.3	18
38	Novel energy conservation strategies and behaviour of <i>Pelotomaculum schinkii</i> driving syntrophic propionate catabolism. <i>Environmental Microbiology</i> , 2018 , 20, 4503-4511	5.2	16
37	Detection of coenzyme F430 in deep sea sediments: A key molecule for biological methanogenesis. <i>Organic Geochemistry</i> , 2013 , 58, 137-140	3.1	16
36	Phylogenetic Diversity of <i>aprA</i> Genes in Subseafloor Sediments on the Northwestern Pacific Margin off Japan. <i>Microbes and Environments</i> , 2015 , 30, 276-80	2.6	15
35	Isolation of an archaeon at the prokaryote-eukaryote interface		15
34	Detection of single-copy functional genes in prokaryotic cells by two-pass TSA-FISH with polynucleotide probes. <i>Journal of Microbiological Methods</i> , 2012 , 88, 218-23	2.8	14
33	Microbial community that catalyzes partial nitrification at low oxygen atmosphere as revealed by 16S rRNA and <i>amoA</i> genes. <i>Journal of Bioscience and Bioengineering</i> , 2007 , 104, 525-8	3.3	14
32	Cultivable microbial community in 2-km-deep, 20-million-year-old seafloor coalbeds through ~1000 days anaerobic bioreactor cultivation. <i>Scientific Reports</i> , 2019 , 9, 2305	4.9	10
31	<i>Aggregatilinea lenta</i> gen. nov., sp. nov., a slow-growing, facultatively anaerobic bacterium isolated from seafloor sediment, and proposal of the new order <i>Aggregatilineales</i> ord. nov. within the class <i>Anaerolineae</i> of the phylum <i>Chloroflexi</i> . <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2019 , 69, 1185-1194	2.2	10
30	Presence of a Novel Methanogenic Archaeal Lineage in Anaerobic Digesters Inferred from <i>mcrA</i> and 16S rRNA Gene Phylogenetic Analyses. <i>Journal of Water and Environment Technology</i> , 2015 , 13, 279-289	1.1	9
29	A method for evaluating the host range of bacteriophages using phages fluorescently labeled with 5-ethynyl-2Tdeoxyuridine (EdU). <i>Applied Microbiology and Biotechnology</i> , 2012 , 95, 777-88	5.7	9
28	Multiple organic substrates support Mn(II) removal with enrichment of Mn(II)-oxidizing bacteria. <i>Journal of Environmental Management</i> , 2020 , 259, 109771	7.9	9
27	Insight into anaerobic methanotrophy from C/C- amino acids and C/C-ANME cells in seafloor microbial ecology. <i>Scientific Reports</i> , 2018 , 8, 14070	4.9	9
26	Bioelectrochemical Stimulation of Electromethanogenesis at a Seawater-Based Subsurface Aquifer in a Natural Gas Field. <i>Frontiers in Energy Research</i> , 2019 , 6,	3.8	6
25	Biotic manganese oxidation coupled with methane oxidation using a continuous-flow bioreactor system under marine conditions. <i>Water Science and Technology</i> , 2017 , 76, 1781-1795	2.2	5
24	Treatment of low-strength wastewater in an anaerobic down-flow hanging sponge (AnDHS) reactor at low temperature. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2012 , 47, 1803-8	2.3	5
23	<i>Methanomicrobium antiquum</i> sp. nov., a hydrogenotrophic methanogen isolated from deep sedimentary aquifers in a natural gas field. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2016 , 66, 4873-4877	2.2	5

22	Topic of Influence, Methane and Microbes. <i>Microbes and Environments</i> , 2017 , 32, 297-299	2.6	4
21	In-situ mechanical weakness of subducting sediments beneath a plate boundary décollement in the Nankai Trough. <i>Progress in Earth and Planetary Science</i> , 2018 , 5,	3.9	4
20	Complete Genome Sequence of Methanoregula formicica SMSPT, a Mesophilic Hydrogenotrophic Methanogen Isolated from a Methanogenic Upflow Anaerobic Sludge Blanket Reactor. <i>Genome Announcements</i> , 2014 , 2,		3
19	Anti-bacterial Effects of MnO on the Enrichment of Manganese-oxidizing Bacteria in Downflow Hanging Sponge Reactors. <i>Microbes and Environments</i> , 2020 , 35,	2.6	3
18	Methanoregulaceae 2016 , 1-4		3
17	Complete genome sequence of Pelolinea submarina MO-CFX1T within the phylum Chloroflexi, isolated from seafloor sediment. <i>Marine Genomics</i> , 2019 , 46, 49-53	1.9	3
16	Methanocella 2016 , 1-6		2
15	Complete Genome Sequence of Methanolinea tarda NOBI-1T, a Hydrogenotrophic Methanogen Isolated from Methanogenic Digester Sludge. <i>Genome Announcements</i> , 2014 , 2,		2
14	Anaerobic/Aerobic Treatment of Actual Dye Wastewater Using System Combining UASB and DHS Reactors. <i>Journal of Japan Society on Water Environment</i> , 2006 , 29, 613-620	0.2	2
13	Exploration of the deep-subseafloor-biosphere frontiers: Achievements and perspectives. <i>Journal of the Geological Society of Japan</i> , 2018 , 124, 77-92	0.6	2
12	Cultivation of Subseafloor Prokaryotic Life. <i>Developments in Marine Geology</i> , 2014 , 197-215		1
11	Recovery of Dissolved Methane in Effluent of Anaerobic Wastewater Treatment by Closed DHS Unit. <i>Journal of Japan Society on Water Environment</i> , 2010 , 33, 25-31	0.2	1
10	sp. nov, a chemotrophic spirochaete isolated from the deep terrestrial subsurface. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2020 , 70, 4739-4747	2.2	1
9	The Family Methanocellaceae 2014 , 209-214		1
8	Methanocellales 2016 , 1-1		1
7	Multispecies populations of methanotrophic and cultivation of a likely dominant species from the Iheya North deep-sea hydrothermal field. <i>Applied and Environmental Microbiology</i> , 2021 , AEM0075821	4.8	0
6	Methanolinea 2016 , 1-4		0
5	Origin of Deep Methane Associated with a Unique Community of Microorganisms in an Organic- and Iodine-Rich Aquifer. <i>ACS Earth and Space Chemistry</i> , 2021 , 5, 1-11	3.2	0

4 Pelolinea **2018**, 1-4

3 Isolation of Uncultivated Methanogens using Anaerobic Syntrophic Substrate-degrading Coculture System.. *Journal of Japan Society on Water Environment*, **2006**, 29, 389-397 0.2

2 Filamentous Microorganisms Affiliated with Uncultured Bacterial Group at Phylum Level: Microbes as Causative Agent for Filamentous Bulking of Methanogenic Sludge Granules. *Journal of Japan Society on Water Environment*, **2005**, 28, 37-42 0.2

1 Methanocellaceae **2016**, 1-1