Akihiko Yamagishi

List of Publications by Year
in descending order

187	4,152	94433 37	161849 54
papers	citations	h-index	g-index

189	189	189	3964
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparative Complete Genome Sequence Analysis of the Amino Acid Replacements Responsible for the Thermostability of Corynebacterium efficiens. Genome Research, 2003, 13, 1572-1579.	5.5	194
2	Experimental evidence for the thermophilicity of ancestral life. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11067-11072.	7.1	153
3	Sulfolobus tokodaii sp. nov. (f. Sulfolobus sp. strain 7), a new member of the genus Sulfolobus isolated from Beppu Hot Springs, Japan. Extremophiles, 2002, 6, 39-44.	2.3	126
4	Microbial communities in ironâ€ŝilicaâ€ŕich microbial mats at deepâ€ŝea hydrothermal fields of the Southern Mariana Trough. Environmental Microbiology, 2009, 11, 2094-2111.	3.8	124
5	Hydrophobic interaction at the subunit interface contributes to the thermostability of 3-isopropylmalate dehydrogenase from an extreme thermophile, Thermus thermophilus. FEBS Journal, 1994, 220, 275-281.	0.2	116
6	Designing Thermostable Proteins: Ancestral Mutants of 3-Isopropylmalate Dehydrogenase Designed by using a Phylogenetic Tree. Journal of Molecular Biology, 2006, 355, 664-674.	4.2	93
7	Abundance ofZetaproteobacteriawithin crustal fluids in backâ€arc hydrothermal fields of the Southern Mariana Trough. Environmental Microbiology, 2009, 11, 3210-3222.	3.8	93
8	Effects of pH and Temperature on the Composition of Polar Lipids in Thermoplasma acidophilum HO-62. Journal of Bacteriology, 2008, 190, 5404-5411.	2.2	92
9	Biogeography and Biodiversity in Sulfide Structures of Active and Inactive Vents at Deep-Sea Hydrothermal Fields of the Southern Mariana Trough. Applied and Environmental Microbiology, 2010, 76, 2968-2979.	3.1	88
10	Phylogenetic Diversity of Symbiotic Methanogens Living in the Hindgut of the Lower Termite Reticulitermes speratus Analyzed by PCR and In Situ Hybridization. Applied and Environmental Microbiology, 1999, 65, 837-840.	3.1	82
11	Serial increase in the thermal stability of 3-isopropylmalate dehydrogenase from Bacillus subtilis by experimental evolution. Protein Science, 1998, 7, 698-705.	7.6	73
12	Complete Polar Lipid Composition of Thermoplasma acidophilum HO-62 Determined by High-Performance Liquid Chromatography with Evaporative Light-Scattering Detection. Journal of Bacteriology, 2002, 184, 556-563.	2.2	68
13	Complete nucleotide sequences of mitochondrial genomes of two solitary entoprocts, Loxocorone allax and Loxosomella aloxiata: Implications for lophotrochozoan phylogeny. Molecular Phylogenetics and Evolution, 2008, 47, 612-628.	2.7	60
14	Stability of Heterochiral Hybrid Membrane Made of Bacterial sn-G3P Lipids and Archaeal sn-G1P Lipids. Biochemistry, 2011, 50, 4114-4120.	2.5	60
15	Introns in protein-coding genes in Archaea. FEBS Letters, 2002, 510, 27-30.	2.8	59
16	Comparative study of flux redistribution of metabolic pathway in glutamate production by two coryneform bacteria. Metabolic Engineering, 2005, 7, 59-69.	7.0	59
17	Space as a Tool for Astrobiology: Review and Recommendations for Experimentations in Earth Orbit and Beyond. Space Science Reviews, 2017, 209, 83-181.	8.1	54
18	Reconstructed ancestral enzymes suggest long-term cooling of Earthâ€™s photic zone since the Archean. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4619-4624.	7.1	53

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19	Mitochondrial genome structure and evolution in the living fossil vampire squid, Vampyroteuthis infernalis, and extant cephalopods. Molecular Phylogenetics and Evolution, 2007, 44, 898-910.	2.7	51
20	Screening of stable proteins in an extreme thermophile, Thermus thermophilus. Molecular Microbiology, 1995, 16, 1031-1036.	2.5	50
21	Archaeal diversity in a terrestrial acidic spring field revealed by a novel PCR primer targeting archaeal 16S rRNA genes. FEMS Microbiology Letters, 2011, 319, 34-43.	1.8	49
22	UV-resistant bacteria isolated from upper troposphere and lower stratosphere. Uchu Seibutsu Kagaku, 2008, 22, 18-25.	0.3	49
23	DNA Damage and Survival Time Course of Deinococcal Cell Pellets During 3 Years of Exposure to Outer Space. Frontiers in Microbiology, 2020, 11, 2050.	3.5	48
24	Investigation of the Interplanetary Transfer of Microbes in the Tanpopo Mission at the Exposed Facility of the International Space Station. Astrobiology, 2016, 16, 363-376.	3.0	47
25	Deinococcus aerius sp. nov., isolated from the high atmosphere. International Journal of Systematic and Evolutionary Microbiology, 2009, 59, 1862-1866.	1.7	46
26	Molecular characterization of the microbial community in hydrogenetic ferromanganese crusts of the Takuyo-Daigo Seamount, northwest Pacific. FEMS Microbiology Letters, 2011, 321, 121-129.	1.8	45
27	Comprehensive reduction of amino acid set in a protein suggests the importance of prebiotic amino acids for stable proteins. Scientific Reports, 2018, 8, 1227.	3.3	45
28	Improvement of Bacillus circulans Î²-amylase activity attained using the ancestral mutation method. Protein Engineering, Design and Selection, 2010, 23, 519-528.	2.1	43
29	Further improvement of the thermal stability of a partially stabilizedBacillusâ€ƒsubtilis3-isopropylmalate dehydrogenase variant by random and site-directed mutagenesis. FEBS Journal, 1999, 260, 499-504.	0.2	42
30	Selection of stabilized 3-isopropylmalate dehydrogenase of Saccharomyces cerevisiae using the host-vector system of an extreme thermophile, Thermus thermophilus. Extremophiles, 2001, 5, 17-22.	2.3	42
31	Calditerricola satsumensis gen. nov., sp. nov. and Calditerricola yamamurae sp. nov., extreme thermophiles isolated from a high-temperature compost. International Journal of Systematic and Evolutionary Microbiology, 2011, 61, 631-636.	1.7	42
32	The Possible Interplanetary Transfer of Microbes: Assessing the Viability of Deinococcus spp. Under the ISS Environmental Conditions for Performing Exposure Experiments of Microbes in the Tanpopo Mission. Origins of Life and Evolution of Biospheres, 2013, 43, 411-428.	1.9	42
33	Potential for biogeochemical cycling of sulfur, iron and carbon within massive sulfide deposits below the seafloor. Environmental Microbiology, 2015, 17, 1817-1835.	3.8	42
34	An efficient gene replacement and deletion system for an extreme thermophile,Thermus thermophilus. FEMS Microbiology Letters, 1999, 173, 431-437.	1.8	41
35	Adaptation of a thermophilic enzyme, 3-isopropylmalate dehydrogenase, to low temperatures. Protein Engineering, Design and Selection, 2001, 14, 85-91.	2.1	41
36	Characterization of the precursor of tetraether lipid biosynthesis in the thermoacidophilic archaeon Thermoplasma acidophilum. Extremophiles, 2003, 7, 235-243.	2.3	41

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37	Environmental Data and Survival Data of Deinococcus aetherius from the Exposure Facility of the Japan Experimental Module of the International Space Station Obtained by the Tanpopo Mission. Astrobiology, 2018, 18, 1369-1374.	3.0	41
38	Deinococcus aetherius sp. nov., isolated from the stratosphere. International Journal of Systematic and Evolutionary Microbiology, 2010, 60, 776-779.	1.7	39
39	Methanogenic Symbionts and the Locality of their Host Lower Termites.. Microbes and Environments, 2001, 16, 43-47.	1.6	34
40	Prokaryotic Abundance and Community Composition in a Freshwater Iron-Rich Microbial Mat at Circumneutral pH. Geomicrobiology Journal, 2012, 29, 896-905.	2.0	33
41	Robustness of predictions of extremely thermally stable proteins in ancient organisms. Evolution; International Journal of Organic Evolution, 2015, 69, 2954-2962.	2.3	33
42	Proteometabolomic response of Deinococcus radiodurans exposed to UVC and vacuum conditions: Initial studies prior to the Tanpopo space mission. PLoS ONE, 2017, 12, e0189381.	2.5	32
43	Occurrence of -Amino Acids and a Pyridoxal 5â€²-Phosphate-Dependent Aspartate Racemase in the Acidothermophilic Archaeon, Thermoplasma acidophilum. Biochemical and Biophysical Research Communications, 2001, 281, 317-321.	2.1	31
44	Circular chromosomal DNA in the sulfur-dependent archaebacteriumSulfolobus acidocaldarius. Nucleic Acids Research, 1990, 18, 1133-1136.	14.5	30
45	Phylogenetic Analysis of Symbiotic Archaea Living in the Gut of Xylophagous Cockroaches.. Microbes and Environments, 2002, 17, 185-190.	1.6	30
46	Archaeal pre-mRNA splicing: A connection to hetero-oligomeric splicing endonuclease. Biochemical and Biophysical Research Communications, 2006, 346, 1024-1032.	2.1	30
47	Distinct tRNA modifications in the thermoâ€acidophilic archaeon, Thermoplasma acidophilum. FEBS Letters, 2013, 587, 3575-3580.	2.8	30
48	Archaeal and bacterial communities in deep-sea hydrogenetic ferromanganese crusts on old seamounts of the northwestern Pacific. PLoS ONE, 2017, 12, e0173071.	2.5	30
49	Molecular repertoire of Deinococcus radiodurans after 1 year of exposure outside the International Space Station within the Tanpopo mission. Microbiome, 2020, 8, 150.	11.1	29
50	A novel chiral thiol reagent for automated precolumn derivatization and high-performance liquid chromatographic enantioseparation of amino acids and its application to the aspartate racemase assay. Analytical Biochemistry, 2003, 315, 262-269.	2.4	28
51	Purification and Characterization of Geranylgeranylglyceryl Phosphate Synthase from a Thermoacidophilic Archaeon, Thermoplasma acidophilum. Journal of Biochemistry, 2003, 133, 651-657.	1.7	28
52	Ancestral amino acid substitution improves the thermal stability of recombinant lignin-peroxidase from white-rot fungi, Phanerochaete chrysosporium strain UAMH 3641. Protein Engineering, Design and Selection, 2015, 28, 221-230.	2.1	28
53	Quinone Profiles of Thermoplasma acidophilum HO-62. Journal of Bacteriology, 2001, 183, 1462-1465.	2.2	27
54	An Actin Homolog of the Archaeon Thermoplasma acidophilum That Retains the Ancient Characteristics of Eukaryotic Actin. Journal of Bacteriology, 2007, 189, 2039-2045.	2.2	27

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55	Phylogeny-Based Design of a B-Subunit of DNA Gyrase and Its ATPase Domain Using a Small Set of Homologous Amino Acid Sequences. Journal of Molecular Biology, 2011, 412, 212-225.	4.2	27
56	Urea-Induced Unfolding and Conformational Stability of 3-Isopropylmalate Dehydrogenase from the Thermophile Thermus thermophilus and Its Mesophilic Counterpart from Escherichia coli. Biochemistry, 1999, 38, 1332-1337.	2.5	26
57	Endosymbiotic Methanobrevibacter species Living in Symbiotic Protists of the Termite Reticulitermes speratus Detected by Fluorescent In Situ Hybridization. Microbes and Environments, 2004, 19, 120-127.	1.6	26
58	Thermostability of ancestral mutants ofCaldococcus noboribetusisocitrate dehydrogenase. FEMS Microbiology Letters, 2005, 243, 393-398.	1.8	26
59	Iron-Based Microbial Ecosystem on and Below the Seafloor: A Case Study of Hydrothermal Fields of the Southern Mariana Trough. Frontiers in Microbiology, 2012, 3, 89.	3.5	26
60	Extremely Thermophilic Translation System in the Common Ancestor Commonote: Ancestral Mutants of Glycyl-tRNA Synthetase from the Extreme Thermophile Thermus thermophilus. Journal of Molecular Biology, 2007, 369, 1060-1069.	4.2	25
61	Gain and loss of an intron in a protein-coding gene in Archaea: the case of an archaeal RNA pseudouridine synthase gene. BMC Evolutionary Biology, 2009, 9, 198.	3.2	25
62	Genomic and proteomic characterization of the largeMyoviridaebacteriophage Ï•TMA of the extreme thermophileThermus thermophilus. Bacteriophage, 2011, 1, 152-164.	1.9	25
63	Characteristics of Microbial Communities in Crustal Fluids in a Deep-Sea Hydrothermal Field of the Suiyo Seamount. Frontiers in Microbiology, 2013, 4, 85.	3.5	24
64	Establishment of mesophilic-like catalytic properties in a thermophilic enzyme without affecting its thermal stability. Scientific Reports, 2019, 9, 9346.	3.3	24
65	Proteomic and Metabolomic Profiling of Deinococcus radiodurans Recovering After Exposure to Simulated Low Earth Orbit Vacuum Conditions. Frontiers in Microbiology, 2019, 10, 909.	3.5	23
66	Experimental Evidence for the Existence of a Stable Half-Barrel Subdomain in the (Î²/Î±)8-Barrel Fold. Journal of Molecular Biology, 2008, 382, 458-466.	4.2	22
67	Effects of a Squalene Epoxidase Inhibitor, Terbinafine, on Ether Lipid Biosyntheses in a Thermoacidophilic Archaeon, Thermoplasma acidophilum. Journal of Bacteriology, 2002, 184, 1395-1401.	2.2	21
68	Metabolic characteristics of an isocitrate dehydrogenase defective derivative ofescherichia coli BL21(DE3). Biotechnology and Bioengineering, 2003, 84, 732-737.	3.3	21
69	Assessing Panspermia Hypothesis by Microorganisms Collected from The High Altitude Atmosphere. Uchu Seibutsu Kagaku, 2009, 23, 151-163.	0.3	21
70	Spatial distribution, diversity and composition of bacterial communities in sub-seafloor fluids at a deep-sea hydrothermal field of the Suiyo Seamount. Deep-Sea Research Part I: Oceanographic Research Papers, 2009, 56, 1844-1855.	1.4	21
71	Mimicking the evolution of a thermally stable monomeric four-helix bundle by fusion of four identical single-helix peptides. Journal of Biochemistry, 2010, 147, 371-379.	1.7	21
72	Quest for Ancestors of Eukaryal Cells Based on Phylogenetic Analyses of Aminoacyl-tRNA Synthetases. Journal of Molecular Evolution, 2017, 84, 51-66.	1.8	21

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73	Assessment of the probability of microbial contamination for sample return from Martian moons II: The fate of microbes on Martian moons. Life Sciences in Space Research, 2019, 23, 85-100.	2.3	21
74	Taurine-containing Uridine Modifications in tRNA Anticodons Are Required to Decipher Non-universal Genetic Codes in Ascidian Mitochondria. Journal of Biological Chemistry, 2011, 286, 35494-35498.	3.4	20
75	Molecular response of Deinococcus radiodurans to simulated microgravity explored by proteometabolomic approach. Scientific Reports, 2019, 9, 18462.	3.3	20
76	Distribution and phylogenetic diversity of cbbM genes encoding RubisCO form II in a deep-sea hydrothermal field revealed by newly designed PCR primers. Extremophiles, 2012, 16, 277-283.	2.3	19
77	Hydroxylation of a conserved tRNA modification establishes non-universal genetic code in echinoderm mitochondria. Nature Structural and Molecular Biology, 2017, 24, 778-782.	8.2	18
78	Effects of Polyamines on a Continuous Cell-Free Protein Synthesis System of an Extreme Thermophile, Thermus thermophilus. Journal of Biochemistry, 1993, 114, 732-734.	1.7	17
79	A stable intermediate in the thermal unfolding process of a chimeric 3â€isopropylmalate dehydrogenase between a thermophilic and a mesophilic enzymes. Protein Science, 1996, 5, 511-516.	7.6	17
80	The GINS complex from the thermophilic archaeon, Thermoplasma acidophilum may function as a homotetramer in DNA replication. Extremophiles, 2011, 15, 529-539.	2.3	17
81	Identification and Characterization of Key Substructures Involved in the Early Folding Events of a (Î²/Î±)8-barrel Protein as Studied by Experimental and Computational Methods. Journal of Molecular Biology, 2005, 353, 1161-1170.	4.2	16
82	Bacterial survival in response to desiccation and high humidity at above zero and subzero temperatures. Advances in Space Research, 2009, 43, 1285-1290.	2.6	16
83	Tanpopo Cosmic Dust Collector: Silica Aerogel Production and Bacterial DNA Contamination Analysis. Uchu Seibutsu Kagaku, 2011, 25, 7-12.	0.3	16
84	Analysis of the archaeal sub-seafloor community at Suiyo Seamount on the Izu-Bonin Arc. Advances in Space Research, 2005, 35, 1634-1642.	2.6	15
85	Assessment of the probability of microbial contamination for sample return from Martian moons I: Departure of microbes from Martian surface. Life Sciences in Space Research, 2019, 23, 73-84.	2.3	15
86	Space Radiation Dosimetry at the Exposure Facility of the International Space Station for the Tanpopo Mission. Astrobiology, 2021, 21, 1473-1478.	3.0	15
87	TANPOPO: Astrobiology Exposure and Micrometeoroid Capture Experiments. Uchu Seibutsu Kagaku, 2007, 21, 67-75.	0.3	15
88	Effect of polar side chains at position 172 on thermal stability of 3-isopropylmalate dehydrogenase from Thermus thermophilus. FEBS Letters, 1997, 410, 141-144.	2.8	14
89	Ultralow-density double-layer silica aerogel fabrication for the intact capture of cosmic dust in low-Earth orbits. Journal of Sol-Gel Science and Technology, 2016, 77, 325-334.	2.4	14
90	Birth of Archaeal Cells: Molecular Phylogenetic Analyses of G1P Dehydrogenase, G3P Dehydrogenases, and Glycerol Kinase Suggest Derived Features of Archaeal Membranes Having G1P Polar Lipids. Archaea, 2016, 2016, 1-16.	2.3	13

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91	A detailed unfolding pathway of a (Î²/Î±)8-barrel protein as studied by molecular dynamics simulations. Proteins: Structure, Function and Bioinformatics, 2004, 58, 538-546.	2.6	12
92	Japan Astrobiology Mars Project (JAMP): Search for Microbes on The Mars Surface with Special Interest in Methane-Oxidizing Bacteria. Uchu Seibutsu Kagaku, 2010, 24, 67-82.	0.3	12
93	Eubacteria-Type Isocitrate Dehydrogenase from an Archaeon: Cloning, Sequencing, and Expression of a Gene Encoding Isocitrate Dehydrogenase from a Hyperthermophilic Archaebacterium,Caldococcus noboribetus. Archives of Biochemistry and Biophysics, 1996, 336, 77-85.	3.0	11
94	Mapping of Unit Boundaries of a Protein: Exhaustive Search for Permissive Sites for Duplication by Complementation Analysis of Random Fragment Libraries of Tryptophan Synthase Î± Subunit. Journal of Molecular Biology, 2004, 335, 1093-1104.	4.2	11
95	Characterization of the DNA Gyrase from the Thermoacidophilic Archaeon Thermoplasma acidophilum. Journal of Bacteriology, 2005, 187, 8531-8536.	2.2	11
96	The effects of multiple ancestral residues on theThermus thermophilus3-isopropylmalate dehydrogenase. FEBS Letters, 2006, 580, 3867-3871.	2.8	11
97	Structural analysis of the plasmid pTA1 isolated from the thermoacidophilic archaeon Thermoplasma acidophilum. Extremophiles, 2006, 10, 327-335.	2.3	11
98	Tanpopo: Astrobiology Exposure and Micrometeoroid Capture Experiments. Transactions of the Japan Society for Aeronautical and Space Sciences Space Technology Japan, 2009, 7, Tk_49-Tk_55.	0.2	11
99	Tanpopo: Astrobiology Exposure and Micrometeoroid Capture Experimentsâ€" Proposed Experiments at the Exposure Facility of ISS-JEM. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2014, 12, Tk_49-Tk_55.	0.2	11
100	The plasmids found in isolates of the acidothermophilic archaebacteriumThermoplasma acidophilum. FEMS Microbiology Letters, 1995, 128, 157-161.	1.8	10
101	Polypeptide Synthesis Directed by DNA as a Messenger in Cell-Free Polypeptide Synthesis by Extreme Thermophiles, Thermus thermophilus HB27 and Sulfolobus tokodaii Strain 7. Journal of Biochemistry, 2002, 131, 849-853.	1.7	10
102	Addition of negatively charged residues can reverse the decrease in the solubility of an acidic protein caused by an artificially introduced non-polar surface patch. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 553-560.	2.3	10
103	Silica Aerogel for Capturing Intact Interplanetary Dust Particles for the Tanpopo Experiment. Origins of Life and Evolution of Biospheres, 2015, 45, 225-229.	1.9	10
104	Epistasis effects of multiple ancestral-consensus amino acid substitutions on the thermal stability of glycerol kinase from Cellulomonas sp. NT3060. Journal of Bioscience and Bioengineering, 2016, 121, 497-502.	2.2	10
105	Thermal unfolding of ribonuclease T1 studied by multi-dimensional NMR spectroscopy. Biological Chemistry, 2004, 385, 1157-64.	2.5	9
106	Transition state of a SH3 domain detected with principle component analysis and a charge-neutralized all-atom protein model. Proteins: Structure, Function and Bioinformatics, 2006, 64, 883-894.	2.6	9
107	Substitutions of Coenzyme-Binding, Nonpolar Residues Improve the Low-Temperature Activity of Thermophilic Dehydrogenases. Biochemistry, 2011, 50, 8583-8593.	2.5	9
108	Design of a Silica-aerogel-based Cosmic Dust Collector for the Tanpopo Mission Aboard the International Space Station. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2014, 12, Pk_29-Pk_34.	0.2	9

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109	Characterization of a thermostable mutant of Agaricus brasiliensis laccase created by phylogeny-based design. Journal of Bioscience and Bioengineering, 2017, 124, 623-629.	2.2	9
110	Creation of artificial proteinâ€“protein interactions using Î±-helices as interfaces. Biophysical Reviews, 2018, 10, 411-420.	3.2	9
111	STXM-XANES analyses of Murchison meteorite samples captured by aerogel after hypervelocity impacts: A potential implication of organic matter degradation for micrometeoroid collection experiments. Geochemical Journal, 2019, 53, 53-67.	1.0	9
112	Increased thermal stability against irreversible inactivation of 3-isopropylmalate dehydrogenase induced by decreased van der Waals volume at the subunit interface. Protein Engineering, Design and Selection, 2003, 16, 615-621.	2.1	8
113	Decoding Mechanism of Non-universal Genetic Codes in Loligo bleekeri Mitochondria. Journal of Biological Chemistry, 2013, 288, 7645-7652.	3.4	8
114	Fluorescence imaging of microbe-containing particles shot from a two-stage Light-gas gun into an aerogel. Origins of Life and Evolution of Biospheres, 2014, 44, 43-60.	1.9	8
115	Evolution of Superoxide Dismutases and Catalases in Cyanobacteria: Occurrence of the Antioxidant Enzyme Genes before the Rise of Atmospheric Oxygen. Journal of Molecular Evolution, 2021, 89, 527-543.	1.8	8
116	Four-Year Operation of Tanpopo: Astrobiology Exposure and Micrometeoroid Capture Experiments on the JEM Exposed Facility of the International Space Station. Astrobiology, 2021, 21, 1461-1472.	3.0	8
117	Scientific Targets of Tanpopo: Astrobiology Exposure and Micrometeoroid Capture Experiments at the Japanese Experiment Module Exposed Facility of the International Space Station. Astrobiology, 2021, 21, 1451-1460.	3.0	7
118	In situ biochemical characterization of Venus cloud particles using a life-signature detection microscope. Canadian Journal of Microbiology, 2022, , 1-13.	1.7	7
119	Cold-adaptation mechanism of mutant enzymes of 3-isopropylmalate dehydrogenase from Thermus thermophilus. Protein Engineering, Design and Selection, 2002, 15, 471-476.	2.1	6
120	Adaptation of a hyperthermophilic group II chaperonin to relatively moderate temperatures. Protein Engineering, Design and Selection, 2010, 23, 393-402.	2.1	6
121	A novel large filamentous deltaproteobacterium on hydrothermally inactive sulfide chimneys of the Southern Mariana Trough. Deep-Sea Research Part I: Oceanographic Research Papers, 2016, 110, 99-105.	1.4	6
122	Cloning and Characterization of Polyphenoloxidase DNA from Agaricus brasiliensis S. Wasser et al. (Agaricomycetideae). International Journal of Medicinal Mushrooms, 2006, 8, 67-76.	1.5	6
123	Cloning and Characterization of Laccase DNA from the Royal Sun Medicinal Mushroom, Agaricus brasiliensis (Higher Basidiomycetes). International Journal of Medicinal Mushrooms, 2014, 16, 375-393.	1.5	6
124	Space Exposure of Amino Acids and Their Precursors during the Tanpopo Mission. Astrobiology, 2021, 21, 1479-1493.	3.0	6
125	Crystal structures of mutants of Thermus thermophilus IPMDH adapted to low temperatures. Protein Engineering, Design and Selection, 2001, 14, 81-84.	2.1	5
126	Prebiotic Origin of Glycolytic Metabolism: Histidine and Cysteine can Produce Acetyl CoA from Glucose via Reactions Homologous to Non-phosphorylated Entner-Doudoroff Pathway. Journal of Biochemistry, 2008, 144, 383-388.	1.7	5

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127	Random mutagenesis improves the low-temperature activity of the tetrameric 3-isopropylmalate dehydrogenase from the hyperthermophile Sulfolobus tokodaii. Protein Engineering, Design and Selection, 2008, 21, 721-727.	2.1	5
128	LDM (Life Detection Microscope): In situ Imaging of Living Cells on Surface of Mars. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2016, 14, Pk_117-Pk_124.	0.2	5
129	A Strategy for Designing Thermostable Enzymes by Reconstructing Ancestral Sequences Possessed by Ancient Life. Grand Challenges in Biology and Biotechnology, 2016, , 581-596.	2.4	5
130	De novo design of proteinâ€“protein interactions through modification of inter-molecular helixâ€“helix interface residues. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 479-487.	2.3	5
131	LDM (Life Detection Microscope): In Situ Imaging of Living Cells on Surface of Mars. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2018, 16, 299-305.	0.2	5
132	Solvent Site-Dipole Field Accompanying Protein-Ligand Approach Process. Chem-Bio Informatics Journal, 2008, 8, 14-24.	0.3	5
133	Continuous Cell-free Protein Synthesis Directed by Messenger DNA and Catalyzed by Extract ofThermus thermophilusHB27. Bioscience, Biotechnology and Biochemistry, 2003, 67, 639-642.	1.3	4
134	The Effects of Mutations at Position 253 on the Thermostability of the Bacillus subtilis 3-Isopropylmalate Dehydrogenase Subunit Interface. Journal of Biochemistry, 2007, 141, 791-797.	1.7	4
135	Constructing protein nanoâ€fiber and estimation of the electronic state around metal ions. International Journal of Quantum Chemistry, 2012, 112, 3750-3755.	2.0	4
136	Geomorphological View of the Environmental History of Mars and Candidate Habitable Environments. Journal of Geography (Chigaku Zasshi), 2016, 125, 171-184.	0.3	4
137	Planktonic adaptive evolution to the sea surface temperature in the Neoproterozoic inferred from ancestral NDK of marine cyanobacteria. Earth and Planetary Science Letters, 2019, 522, 98-106.	4.4	4
138	Partial Purification and Characterization of Polyphenoloxidase from Culinary-Medicinal Royal Sun Mushroom (the Himematsutake), Agaricus brasiliensis S. Wasser et al. (Agaricomycetideae). International Journal of Medicinal Mushrooms, 2011, 13, 73-82.	1.5	4
139	Mutation Analysis of therpoBGene in the Radiation-Resistant BacteriumDeinococcus radioduransR1 Exposed to Space during the Tanpopo Experiment at the International Space Station. Astrobiology, 2021, 21, 1494-1504.	3.0	4
140	Elemental dissolution of basalts with ultra-pure water at 340Â°C and 40 Mpa in a newly developed flow-type hydrothermal apparatus. Geochemical Journal, 2013, 47, 89-92.	1.0	3
141	Evaluation of the protein interfaces that form an intermolecular four-helix bundle as studied by computer simulation. Molecular Simulation, 2014, 40, 498-503.	2.0	3
142	Intra-Field Variation of Prokaryotic Communities On and Below the Seafloor in the Back-Arc Hydrothermal System of the Southern Mariana Trough. , 2015, , 301-311.		3
143	An efficient gene replacement and deletion system for an extreme thermophile, Thermus thermophilus. FEMS Microbiology Letters, 1999, 173, 431-437.	1.8	3
144	Crystal structure of (S)-3-O-geranylgeranylglyceryl phosphate synthase fromThermoplasma acidophilumin complex with the substratesn-glycerol 1-phosphate. Acta Crystallographica Section F, Structural Biology Communications, 2019, 75, 470-479.	0.8	3

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145	Space Exposure of Amino Acids and Their Precursors in the Tanpopo Mission Using the International Space Station. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2014, 12, Pp_1-Pp_6.	0.2	3
146	Analysis of the effect of accumulation of amino acid replacements on activity of 3-isopropylmalate dehydrogenase from Thermus thermophilus. Protein Engineering, Design and Selection, 2001, 14, 601-607.	2.1	2
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