

Shin-ichi Yokobori

List of Publications by Year in descending order

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98
papers

3,302
citations

126708

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168136

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101
times ranked

3127
citing authors

#	ARTICLE	IF	CITATIONS
1	Amino Acid Specificity of Ancestral Aminoacyl-tRNA Synthetase Prior to the Last Universal Common Ancestor Commonote commonote. <i>Journal of Molecular Evolution</i> , 2022, 90, 73-94.	0.8	2
2	Evolution of Superoxide Dismutases and Catalases in Cyanobacteria: Occurrence of the Antioxidant Enzyme Genes before the Rise of Atmospheric Oxygen. <i>Journal of Molecular Evolution</i> , 2021, 89, 527-543.	0.8	8
3	Scientific Targets of Tanpopo: Astrobiology Exposure and Micrometeoroid Capture Experiments at the Japanese Experiment Module Exposed Facility of the International Space Station. <i>Astrobiology</i> , 2021, 21, 1451-1460.	1.5	7
4	Mutation Analysis of the <i>rpoB</i> Gene in the Radiation-Resistant Bacterium <i>Deinococcus radiodurans</i> R1 Exposed to Space during the Tanpopo Experiment at the International Space Station. <i>Astrobiology</i> , 2021, 21, 1494-1504.	1.5	4
5	Space Exposure of Amino Acids and Their Precursors during the Tanpopo Mission. <i>Astrobiology</i> , 2021, 21, 1479-1493.	1.5	6
6	DNA Damage and Survival Time Course of <i>Deinococcus</i> Cell Pellets During 3 Years of Exposure to Outer Space. <i>Frontiers in Microbiology</i> , 2020, 11, 2050.	1.5	48
7	Characterization and phylogenetic position of two sympatric sister species of toxic flatworms <i>Planocera multitentaculata</i> and <i>Planocera reticulata</i> (Platyhelminthes: Acotylea). <i>Mitochondrial DNA Part B: Resources</i> , 2020, 5, 2352-2354.	0.2	1
8	Establishment of mesophilic-like catalytic properties in a thermophilic enzyme without affecting its thermal stability. <i>Scientific Reports</i> , 2019, 9, 9346.	1.6	24
9	Planktonic adaptive evolution to the sea surface temperature in the Neoproterozoic inferred from ancestral NDK of marine cyanobacteria. <i>Earth and Planetary Science Letters</i> , 2019, 522, 98-106.	1.8	4
10	Eukaryotes Appearing. , 2019, , 105-121.		0
11	Mitogenome analysis of dwarf pufferfish (<i>Carinotetraodon travancoricus</i>) endemic to southwest India and its implications in the phylogeny of Tetraodontidae. <i>Journal of Genetics</i> , 2019, 98, 1.	0.4	0
12	STXM-XANES analyses of Murchison meteorite samples captured by aerogel after hypervelocity impacts: A potential implication of organic matter degradation for micrometeoroid collection experiments. <i>Geochemical Journal</i> , 2019, 53, 53-67.	0.5	9
13	Temperature Measurement of Space Environment with Tanpopo Space Thermometer. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , 2019, 2019, J19101.	0.0	0
14	Draft Genome Sequence of the Radioresistant Bacterium <i>Deinococcus aerius</i> TR0125, Isolated from the High Atmosphere above Japan. <i>Genome Announcements</i> , 2018, 6, .	0.8	1
15	STARLIFE“An International Campaign to Study the Role of Galactic Cosmic Radiation in Astrobiological Model Systems. <i>Astrobiology</i> , 2017, 17, 101-109.	1.5	53
16	Diversification of mitochondrial genome of <i>Daphnia galeata</i> (Cladocera, Crustacea): Comparison with phylogenetic consideration of the complete sequences of clones isolated from five lakes in Japan. <i>Gene</i> , 2017, 611, 38-46.	1.0	20
17	Reconstructed ancestral enzymes suggest long-term cooling of Earth’s photic zone since the Archean. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 4619-4624.	3.3	53
18	Hydroxylation of a conserved tRNA modification establishes non-universal genetic code in echinoderm mitochondria. <i>Nature Structural and Molecular Biology</i> , 2017, 24, 778-782.	3.6	18

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19	Updated mitochondrial phylogeny of Pteriomorph and Heterodont Bivalvia, including deep-sea chemosymbiotic Bathymodiolus mussels, vesicomylid clams and the thyasirid clam Conchocele cf. bisecta. <i>Marine Genomics</i> , 2017, 31, 43-52.	0.4	19
20	Quest for Ancestors of Eukaryal Cells Based on Phylogenetic Analyses of Aminoacyl-tRNA Synthetases. <i>Journal of Molecular Evolution</i> , 2017, 84, 51-66.	0.8	21
21	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. <i>Archaea</i> , 2016, 2016, 1-16.	2.3	13
22	Development of mechanical space thermometer for the Tanpopo mission. <i>Transactions of the JSME (in Japanese)</i> , 2017, 83, 1-10.	0.1	1
23	Extremotolerant tardigrade genome and improved radiotolerance of human cultured cells by tardigrade-unique protein. <i>Nature Communications</i> , 2016, 7, 12808.	5.8	270
24	Investigation of the Interplanetary Transfer of Microbes in the Tanpopo Mission at the Exposed Facility of the International Space Station. <i>Astrobiology</i> , 2016, 16, 363-376.	1.5	47
25	Epistasis effects of multiple ancestral-consensus amino acid substitutions on the thermal stability of glycerol kinase from <i>Cellulomonas</i> sp. NT3060. <i>Journal of Bioscience and Bioengineering</i> , 2016, 121, 497-502.	1.1	10
26	Ultralow-density double-layer silica aerogel fabrication for the intact capture of cosmic dust in low-Earth orbits. <i>Journal of Sol-Gel Science and Technology</i> , 2016, 77, 325-334.	1.1	14
27	Robustness of predictions of extremely thermally stable proteins in ancient organisms. <i>Evolution; International Journal of Organic Evolution</i> , 2015, 69, 2954-2962.	1.1	33
28	Evolution of Eukaryotic DNA Polymerases via Interaction Between Cells and Large DNA Viruses. <i>Journal of Molecular Evolution</i> , 2015, 81, 24-33.	0.8	29
29	Ancestral amino acid substitution improves the thermal stability of recombinant lignin-peroxidase from white-rot fungi, <i>Phanerochaete chrysosporium</i> strain UAMH 3641. <i>Protein Engineering, Design and Selection</i> , 2015, 28, 221-230.	1.0	28
30	Tanpopo: Astrobiology Exposure and Micrometeoroid Capture Experiments Proposed Experiments at the Exposure Facility of ISS-JEM. <i>Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan</i> , 2014, 12, Tk_49-Tk_55.	0.1	11
31	Design of a Silica-aerogel-based Cosmic Dust Collector for the Tanpopo Mission Aboard the International Space Station. <i>Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan</i> , 2014, 12, Pk_29-Pk_34.	0.1	9
32	How the Early Genetic Code Was Established?: Inference from the Analysis of Extant Animal Mitochondrial Decoding Systems. <i>Journal of Molecular Evolution</i> , 2014, 78, 25-40.		4
33	<i>Arabidopsis thaliana</i> mitochondrial EF-G1 functions in two different translation steps. <i>Journal of Biochemistry</i> , 2014, 155, 107-114.	0.9	1
34	Fluorescence imaging of microbe-containing particles shot from a two-stage Light-gas gun into an aerogel. <i>Origins of Life and Evolution of Biospheres</i> , 2014, 44, 43-60.	0.8	8
35	Space Exposure of Amino Acids and Their Precursors in the Tanpopo Mission Using the International Space Station. <i>Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan</i> , 2014, 12, Pp_1-Pp_6.	0.1	3
36	Experimental evidence for the thermophilicity of ancestral life. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 11067-11072.	3.3	153

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37	Comparative Genomics of Thermophilic Bacteria and Archaea. , 2013, , 331-349.		2
38	The Possible Interplanetary Transfer of Microbes: Assessing the Viability of <i>Deinococcus</i> spp. Under the ISS Environmental Conditions for Performing Exposure Experiments of Microbes in the Tanpopo Mission. <i>Origins of Life and Evolution of Biospheres</i> , 2013, 43, 411-428.	0.8	42
39	Life without tRNA ^{Arg} —adenosine deaminase TadA: evolutionary consequences of decoding the four CGN codons as arginine in <i>Mycoplasmas</i> and other Mollicutes. <i>Nucleic Acids Research</i> , 2013, 41, 6531-6543.	6.5	24
40	Decoding Mechanism of Non-universal Genetic Codes in <i>Loligo bleekeri</i> Mitochondria. <i>Journal of Biological Chemistry</i> , 2013, 288, 7645-7652.	1.6	8
41	Selection of Lichens Resistant to the Cosmic Environment—Thermal Cycle Treatment, UV Irradiation and Heavy Ion Beam Irradiation—. <i>Uchu Seibutsu Kagaku</i> , 2013, 27, 9-18.	1.0	1
42	Tolerance of Anhydrobiotic Eggs of the Tardigrade <i>Ramazzottius varieornatus</i> to Extreme Environments. <i>Astrobiology</i> , 2012, 12, 283-289.	1.5	35
43	Phylogeny-Based Design of a B-Subunit of DNA Gyrase and Its ATPase Domain Using a Small Set of Homologous Amino Acid Sequences. <i>Journal of Molecular Biology</i> , 2011, 412, 212-225.	2.0	27
44	tRNA Modification and Genetic Code Variations in Animal Mitochondria. <i>Journal of Nucleic Acids</i> , 2011, 2011, 1-12.	0.8	49
45	Tanpopo Cosmic Dust Collector: Silica Aerogel Production and Bacterial DNA Contamination Analysis. <i>Uchu Seibutsu Kagaku</i> , 2011, 25, 7-12.	1.0	16
46	Male death resulting from hybridization between subspecies of the gypsy moth, <i>Lymantria dispar</i> . <i>Heredity</i> , 2011, 106, 603-613.	1.2	10
47	Taurine-containing Uridine Modifications in tRNA Anticodons Are Required to Decipher Non-universal Genetic Codes in Ascidian Mitochondria. <i>Journal of Biological Chemistry</i> , 2011, 286, 35494-35498.	1.6	20
48	A bacterial elongation factor G homologue exclusively functions in ribosome recycling in the spirochaete <i>Borrelia burgdorferi</i> . <i>Molecular Microbiology</i> , 2010, 75, 1445-1454.	1.2	24
49	1P075 Elucidation of the protein sequence-stability relationship by comparing designed ancestral proteins with reduced neutral mutations (Protein:Property, The 48th Annual Meeting of the Tj ETQq1 1 0.784314 rgB /Overlock 10 T		
50	The complete mitochondrial genome of <i>Caprella scaura</i> (Crustacea, Amphipoda, Caprellidea), with emphasis on the unique gene order pattern and duplicated control region. <i>Mitochondrial DNA</i> , 2010, 21, 183-190.	0.6	23
51	<i>Deinococcus aetherius</i> sp. nov., isolated from the stratosphere. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2010, 60, 776-779.	0.8	39
52	Improvement of <i>Bacillus circulans</i> Î ² -amylase activity attained using the ancestral mutation method. <i>Protein Engineering, Design and Selection</i> , 2010, 23, 519-528.	1.0	43
53	Repetitive sequences in the lamprey mitochondrial DNA control region and speciation of <i>Lethenteron</i> . <i>Gene</i> , 2010, 465, 45-52.	1.0	16
54	Japan Astrobiology Mars Project (JAMP): Search for Microbes on The Mars Surface with Special Interest in Methane-Oxidizing Bacteria. <i>Uchu Seibutsu Kagaku</i> , 2010, 24, 67-82.	1.0	12

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55	Assessing Panspermia Hypothesis by Microorganisms Collected from The High Altitude Atmosphere. <i>Uchu Seibutsu Kagaku</i> , 2009, 23, 151-163.	1.0	21
56	Tanpopo: Astrobiology Exposure and Micrometeoroid Capture Experiments. <i>Transactions of the Japan Society for Aeronautical and Space Sciences Space Technology Japan</i> , 2009, 7, Tk_49-Tk_55.	0.2	11
57	<i>Deinococcus aerius</i> sp. nov., isolated from the high atmosphere. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2009, 59, 1862-1866.	0.8	46
58	Gain and loss of an intron in a protein-coding gene in Archaea: the case of an archaeal RNA pseudouridine synthase gene. <i>BMC Evolutionary Biology</i> , 2009, 9, 198.	3.2	25
59	Potential speciation of morphotypes in the photosymbiotic ascidian <i>Didemnum molle</i> in the Ryukyu Archipelago, Japan. <i>Coral Reefs</i> , 2009, 28, 119-126.	0.9	24
60	Bacterial survival in response to desiccation and high humidity at above zero and subzero temperatures. <i>Advances in Space Research</i> , 2009, 43, 1285-1290.	1.2	16
61	Induction profile of HSP70-cognate genes by environmental pollutants in Chironomidae. <i>Environmental Toxicology and Pharmacology</i> , 2009, 28, 294-301.	2.0	33
62	Enzymatic and crystallographic characterization of archaeal tRNA splicing endonuclease. , 2009, , .		0
63	Complete nucleotide sequences of mitochondrial genomes of two solitary entoprocts, <i>Loxocorone allax</i> and <i>Loxosomella aloxiata</i> : Implications for lophotrochozoan phylogeny. <i>Molecular Phylogenetics and Evolution</i> , 2008, 47, 612-628.	1.2	60
64	UV-resistant bacteria isolated from upper troposphere and lower stratosphere. <i>Uchu Seibutsu Kagaku</i> , 2008, 22, 18-25.	1.0	49
65	An Actin Homolog of the Archaeon <i>Thermoplasma acidophilum</i> That Retains the Ancient Characteristics of Eukaryotic Actin. <i>Journal of Bacteriology</i> , 2007, 189, 2039-2045.	1.0	27
66	3P276 Hyperthermophilic translation system in the last common ancestor : ancestral mutants of <i>Thermus thermophilus</i> glycyl-tRNA synthetase (Proteins- protein engineering, and evolutionary) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 29		
67	Purification and characterization of pepsinogens from the gastric mucosa of African coelacanth, <i>Latimeria chalumnae</i> , and properties of the major pepsins. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2007, 146, 412-420.	0.7	33
68	Extremely Thermophilic Translation System in the Common Ancestor Commonote: Ancestral Mutants of Glycyl-tRNA Synthetase from the Extreme Thermophile <i>Thermus thermophilus</i> . <i>Journal of Molecular Biology</i> , 2007, 369, 1060-1069.	2.0	25
69	Mitochondrial genome structure and evolution in the living fossil vampire squid, <i>Vampyroteuthis infernalis</i> , and extant cephalopods. <i>Molecular Phylogenetics and Evolution</i> , 2007, 44, 898-910.	1.2	51
70	TANPOPO: Astrobiology Exposure and Micrometeoroid Capture Experiments. <i>Uchu Seibutsu Kagaku</i> , 2007, 21, 67-75.	1.0	15
71	Archaeal pre-mRNA splicing: A connection to hetero-oligomeric splicing endonuclease. <i>Biochemical and Biophysical Research Communications</i> , 2006, 346, 1024-1032.	1.0	30
72	Designing Thermostable Proteins: Ancestral Mutants of 3-Isopropylmalate Dehydrogenase Designed by using a Phylogenetic Tree. <i>Journal of Molecular Biology</i> , 2006, 355, 664-674.	2.0	93

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73	The substrate specificity of tRNA (m1G37) methyltransferase (TrmD) from <i>Aquifex aeolicus</i> . <i>Genes To Cells</i> , 2006, 11, 1353-1365.	0.5	38
74	Multiple origins of the ascidian-Prochloron symbiosis: Molecular phylogeny of photosymbiotic and non-symbiotic colonial ascidians inferred from 18S rDNA sequences. <i>Molecular Phylogenetics and Evolution</i> , 2006, 40, 8-19.	1.2	59
75	Structural analysis of the plasmid pTA1 isolated from the thermoacidophilic archaeon <i>Thermoplasma acidophilum</i> . <i>Extremophiles</i> , 2006, 10, 327-335.	0.9	11
76	IP144 Hyperthermophilic translation system in the common ancestor : Analysis of ancestral mutants of GlyRS of the <i>Thermus thermophilus</i> (4. Protein engineering,Poster Session,Abstract,Meeting) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 61	0.0	0
77	Complete nucleotide sequence of the mitochondrial genome of <i>Doliolum nationalis</i> with implications for evolution of urochordates. <i>Molecular Phylogenetics and Evolution</i> , 2005, 34, 273-283.	1.2	49
78	The phylogenetic status of Paxillosida (Asteroidea) based on complete mitochondrial DNA sequences. <i>Molecular Phylogenetics and Evolution</i> , 2005, 36, 598-605.	1.2	25
79	Thermostability of ancestral mutants of <i>Caldococcus noboribetuis</i> isocitrate dehydrogenase. <i>FEMS Microbiology Letters</i> , 2005, 243, 393-398.	0.7	26
80	Functional reconstitution of an archaeal splicing endonuclease in vitro. <i>Nucleic Acids Symposium Series</i> , 2005, 49, 103-104.	0.3	0
81	Functional reconstitution of a crenarchaeal splicing endonuclease in vitro. <i>Biochemical and Biophysical Research Communications</i> , 2005, 334, 1254-1259.	1.0	16
82	Long-Term Conservation of Six Duplicated Structural Genes in Cephalopod Mitochondrial Genomes. <i>Molecular Biology and Evolution</i> , 2004, 21, 2034-2046.	3.5	98
83	Mitochondrial Genome of <i>Ciona savignyi</i> (Urochordata, Ascidiacea, Enterogona): Comparison of Gene Arrangement and tRNA Genes with <i>Halocynthia roretzi</i> Mitochondrial Genome. <i>Journal of Molecular Evolution</i> , 2003, 57, 574-587.	0.8	36
84	Introns in protein-coding genes in Archaea. <i>FEBS Letters</i> , 2002, 510, 27-30.	1.3	59
85	The Cephalopod <i>Loligo bleekeri</i> Mitochondrial Genome: Multiplied Noncoding Regions and Transposition of tRNA Genes. <i>Journal of Molecular Evolution</i> , 2002, 54, 486-500.	0.8	64
86	Genetic Code Variations in Mitochondria: tRNA as a Major Determinant of Genetic Code Plasticity. <i>Journal of Molecular Evolution</i> , 2001, 53, 314-326.	0.8	64
87	An extra tRNA ^{Gly} (U*CU) found in ascidian mitochondria responsible for decoding non-universal codons AGA/AGG as glycine. <i>Nucleic Acids Research</i> , 1999, 27, 2554-2559.	6.5	36
88	Gene Contents and Organization of a Mitochondrial DNA Segment of the Squid <i>Loligo bleekeri</i> . <i>Journal of Molecular Evolution</i> , 1999, 48, 692-702.	0.8	28
89	Complete DNA Sequence of the Mitochondrial Genome of the Ascidian <i>Halocynthia roretzi</i> (Chordata,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 61	1.2	72
90	Ascidian Mitochondrial tRNA ^{Met} Possessing Unique Structural Characteristics. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 1998, 17, 531-539.	0.4	10

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91	The Mitochondrial Genome of the Hemichordate <i>Balanoglossus carnosus</i> and the Evolution of Deuterostome Mitochondria. <i>Genetics</i> , 1998, 150, 1115-1123.	1.2	90
92	Polyadenylation creates the discriminator nucleotide of chicken mitochondrial tRNA ^{Tyr} . <i>Journal of Molecular Biology</i> , 1997, 265, 95-99.	2.0	77
93	RNA editing in metazoan mitochondria: staying fit without sex. <i>FEBS Letters</i> , 1997, 409, 320-324.	1.3	52
94	Evolution of Pulmonate Gastropod Mitochondrial Genomes: Comparisons of Gene Organizations of <i>Euhadra</i> , <i>Cepaea</i> and <i>Albinaria</i> and Implications of Unusual tRNA Secondary Structures. <i>Genetics</i> , 1997, 145, 749-758.	1.2	149
95	Transfer RNA editing in land snail mitochondria.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1995, 92, 10432-10435.	3.3	160
96	tRNA editing in metazoans. <i>Nature</i> , 1995, 377, 490-490.	13.7	95
97	Relationship among coelacanths, lungfishes, and tetrapods: A phylogenetic analysis based on mitochondrial cytochrome oxidase I gene sequences. <i>Journal of Molecular Evolution</i> , 1994, 38, 602-9.	0.8	51
98	Codons AGA and AGG are read as glycine in ascidian mitochondria. <i>Journal of Molecular Evolution</i> , 1993, 36, 1-8.	0.8	53