Olga Zhaxybayeva

List of Publications by Year
in descending order

62 papers	3,960 citations	201674 27 h-index	144013 57 g-index
79 all docs	79 docs citations	79 times ranked	4099 citing authors

#	Article	IF	Citations
1	Gene transfer agents: phage-like elements of genetic exchange. Nature Reviews Microbiology, 2012, 10, 472-482.	28.6	336
2	Bootstrap, Bayesian probability and maximum likelihood mapping: exploring new tools for comparative genome analyses. BMC Genomics, 2002, 3, 4.	2.8	281
3	Whole-Genome Analysis of Photosynthetic Prokaryotes. Science, 2002, 298, 1616-1620.	12.6	278
4	Phylogenetic analyses of cyanobacterial genomes: Quantification of horizontal gene transfer events. Genome Research, 2006, 16, 1099-1108.	5.5	278
5	On the chimeric nature, thermophilic origin, and phylogenetic placement of the Thermotogales. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5865-5870.	7.1	221
6	On the origin of prokaryotic species. Genome Research, 2009, 19, 744-756.	5.5	207
7	Inteins: Structure, Function, and Evolution. Annual Review of Microbiology, 2002, 56, 263-287.	7.3	203
8	Were arachnids the first to use combinatorial peptide libraries?. Peptides, 2005, 26, 131-139.	2.4	189
9	Lateral gene transfer. Current Biology, 2011, 21, R242-R246.	3.9	151
10	Actinorhodopsins: proteorhodopsinâ€like gene sequences found predominantly in nonâ€marine environments. Environmental Microbiology, 2008, 10, 1039-1056.	3.8	136
11	Searching for species in haloarchaea. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14092-14097.	7.1	128
12	Genomic plasticity in prokaryotes: the case of the square haloarchaeon. ISME Journal, 2007, 1, 235-245.	9.8	116
13	Evolutionary and Diagnostic Implications of Intragenomic Heterogeneity in the 16S rRNA Gene in Aeromonas Strains. Journal of Bacteriology, 2005, 187, 6561-6564.	2.2	89
14	Cladogenesis, coalescence and the evolution of the three domains of life. Trends in Genetics, 2004, 20, 182-187.	6.7	86
15	Genome mosaicism and organismal lineages. Trends in Genetics, 2004, 20, 254-260.	6.7	86
16	Intertwined Evolutionary Histories of Marine Synechococcus and Prochlorococcus marinus. Genome Biology and Evolution, 2009, 1, 325-339.	2.5	80
17	Ancient gene duplications and the root(s) of the tree of life. Protoplasma, 2005, 227, 53-64.	2.1	62
18	Integronâ€associated gene cassettes in Halifax Harbour: assessment of a mobile gene pool in marine sediments. Environmental Microbiology, 2008, 10, 1024-1038.	3.8	59

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19	Functional and Evolutionary Characterization of a Gene Transfer Agentâ€™s Multilocus â€œGenomeâ€• Molecular Biology and Evolution, 2016, 33, 2530-2543.	8.9	58
20	Evidence for Existence of â€œMesotogas,â€•Members of the Order Thermotogales Adapted to Low-Temperature Environments. Applied and Environmental Microbiology, 2006, 72, 5061-5068.	3.1	54
21	Insights into origin and evolution of Î±-proteobacterial gene transfer agents. Virus Evolution, 2017, 3, vex036.	4.9	53
22	Horizontal Transfer of Archaeal Genes into the Deinococcaceae: Detection by Molecular and Computer-Based Approaches. Journal of Molecular Evolution, 2000, 51, 587-599.	1.8	52
23	Metagenomics and the Units of Biological Organization. BioScience, 2010, 60, 102-112.	4.9	51
24	Insights into thermoadaptation and the evolution of mesophily from the bacterial phylum Thermotogae. Canadian Journal of Microbiology, 2015, 61, 655-670.	1.7	47
25	Cell sorting analysis of geographically separated hypersaline environments. Extremophiles, 2013, 17, 265-275.	2.3	46
26	Evolution of photosynthetic prokaryotes: a maximum-likelihood mapping approach. Philosophical Transactions of the Royal Society B: Biological Sciences, 2003, 358, 223-230.	4.0	43
27	Photosystem II protein clearance and FtsH function in the diatom Thalassiosira pseudonana. Photosynthesis Research, 2013, 115, 43-54.	2.9	42
28	Evidence for extensive gene flow and Thermotoga subpopulations in subsurface and marine environments. ISME Journal, 2015, 9, 1532-1542.	9.8	36
29	Evolution of DNA packaging in gene transfer agents. Virus Evolution, 2021, 7, veab015.	4.9	36
30	Horizontal Gene Acquisitions, Mobile Element Proliferation, and Genome Decay in the Host-Restricted Plant PathogenErwinia Tracheiphila. Genome Biology and Evolution, 2016, 8, 649-664.	2.5	34
31	The Genome of Thermosipho africanus TCF52B: Lateral Genetic Connections to the Firmicutes and Archaea. Journal of Bacteriology, 2009, 191, 1974-1978.	2.2	31
32	An Introduced Crop Plant Is Driving Diversification of the Virulent Bacterial Pathogen Erwinia tracheiphila. MBio, 2018, 9, .	4.1	28
33	Genome Sequence of the Mesophilic Thermotogales Bacterium Mesotoga prima MesG1.Ag.4.2 Reveals the Largest Thermotogales Genome To Date. Genome Biology and Evolution, 2012, 4, 812-820.	2.5	24
34	Machine-Learning Classification Suggests That Many Alphaproteobacterial Prophages May Instead Be Gene Transfer Agents. Genome Biology and Evolution, 2019, 11, 2941-2953.	2.5	24
35	Systematic overestimation of gene gain through false diagnosis of gene absence. Genome Biology, 2007, 8, 402.	9.6	23
36	Detection and Quantitative Assessment of Horizontal Gene Transfer. Methods in Molecular Biology, 2009, 532, 195-213.	0.9	23

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37	An improved probability mapping approach to assess genome mosaicism. BMC Genomics, 2003, 4, 37.	2.8	22
38	Spliceosomal Introns: New Insights into their Evolution. Current Biology, 2003, 13, R764-R766.	3.9	22
39	Visualization of the phylogenetic content of five genomes using dekapentagonal maps. Genome Biology, 2004, 5, R20.	9.6	21
40	â€˜MÃ©nage Ã troisâ€™: a selfish genetic element uses a virus to propagate within <scp>T</scp>hermotogales. Environmental Microbiology, 2015, 17, 3278-3288.	3.8	21
41	Gene Transfer and the Reconstruction of Lifeâ€™s Early History from Genomic Data. Space Science Reviews, 2008, 135, 115-131.	8.1	19
42	Global cellulose biomass, horizontal gene transfers and domain fusions drive microbial expansin evolution. New Phytologist, 2020, 226, 921-938.	7.3	19
43	Evolution: Reducible Complexity â€” The Case for Bacterial Flagella. Current Biology, 2007, 17, R510-R512.	3.9	15
44	Draft Genome Sequence of Erwinia tracheiphila, an Economically Important Bacterial Pathogen of Cucurbits. Genome Announcements, 2015, 3, .	0.8	14
45	Selection for Reducing Energy Cost of Protein Production Drives the GC Content and Amino Acid Composition Bias in Gene Transfer Agents. MBio, 2020, 11, .	4.1	12
46	Nutrient supplementation experiments with saltern microbial communities implicate utilization of DNA as a source of phosphorus. ISME Journal, 2021, 15, 2853-2864.	9.8	12
47	Genomic insights into temperature-dependent transcriptional responses of Kosmotoga olearia, a deep-biosphere bacterium that can grow from 20 to 79ÂÂ°C. Extremophiles, 2017, 21, 963-979.	2.3	11
48	A null model for microbial diversification. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5414-E5423.	7.1	9
49	Horizontal Gene Transfer. , 2002, , 427-435.		8
50	What Is a Prokaryote?. , 2013, , 21-37.		8
51	A hyperconserved protein inProchlorococcusand marineSynechococcus. FEMS Microbiology Letters, 2007, 274, 30-34.	1.8	7
52	PentaPlot: a software tool for the illustration of genome mosaicism. BMC Bioinformatics, 2005, 6, 139.	2.6	6
53	Quartet decomposition server: a platform for analyzing phylogenetic trees. BMC Bioinformatics, 2012, 13, 123.	2.6	6
54	Horizontal gene transfer, gene histories, and the root of the tree of life. , 0, , 178-192.		4

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55	Newly identified proviruses in Thermotogota suggest that viruses are the vehicles on the highways of interphylum gene sharing. Environmental Microbiology, 2021, 23, 7105-7120.	3.8	4
56	HORIZONTAL GENE TRANSFER: ITS DETECTION AND ROLE IN MICROBIAL EVOLUTION. Series on Advances in Bioinformatics and Computational Biology, 2008, , 137-151.	0.2	4
57	Quantitative and Functional Characterization of the Hyper-Conserved Protein of Prochlorococcus and Marine Synechococcus. PLoS ONE, 2014, 9, e109327.	2.5	4
58	Anciently duplicated genes reduce uncertainty in molecular clock estimates. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12168-12169.	7.1	3
59	The structure of a highly-conserved picocyanobacterial protein reveals a Tudor domain with an RNA-binding function. Journal of Biological Chemistry, 2019, 294, 14333-14344.	3.4	3
60	Gene Transfer and the Reconstruction of Lifeâ€™s Early History from Genomic Data. Space Sciences Series of ISSI, 2008, , 115-131.	0.0	3
61	Unsupervised Learning in Spectral Genome Analysis. , 2007, , .		1
62	The Mystery of Eukaryotic Cell Origin. BioScience, 2012, 62, 997-998.	4.9	0