Oded Beja

List of Publications by Year
in descending order

98 papers	7,495 citations	50170 46 h-index	58464 82 g-index
180 all docs	180 docs citations	180 times ranked	5392 citing authors

#	Article	IF	Citations
1	Diverse heliorhodopsins detected via functional metagenomics in freshwater Actinobacteria, Chloroflexi and Archaea. Environmental Microbiology, 2022, 24, 110-121.	1.8	22
2	Saccharibacteria harness light energy using type-1 rhodopsins that may rely on retinal sourced from microbial hosts. ISME Journal, 2022, 16, 2056-2059.	4.4	13
3	Rhodopsin-bestrophin fusion proteins from unicellular algae form gigantic pentameric ion channels. Nature Structural and Molecular Biology, 2022, 29, 592-603.	3.6	23
4	Exploration of natural red-shifted rhodopsins using a machine learning-based Bayesian experimental design. Communications Biology, 2021, 4, 362.	2.0	15
5	TAT Rhodopsin Is an Ultraviolet-Dependent Environmental pH Sensor. Biochemistry, 2021, 60, 899-907.	1.2	9
6	Phage biology: Stuck with dU. Current Biology, 2021, 31, R898-R900.	1.8	1
7	Microbial Rhodopsins: The Last Two Decades. Annual Review of Microbiology, 2021, 75, 427-447.	2.9	98
8	Lateral Gene Transfer of Anion-Conducting Channelrhodopsins between Green Algae and Giant Viruses. Current Biology, 2020, 30, 4910-4920.e5.	1.8	42
9	Genomic and transcriptomic evidence of light-sensing, porphyrin biosynthesis, Calvin-Benson-Bassham cycle, and urea production in Bathyarchaeota. Microbiome, 2020, 8, 43.	4.9	31
10	Schizorhodopsins: A family of rhodopsins from Asgard archaea that function as light-driven inward H ⁺ pumps. Science Advances, 2020, 6, eaaz2441.	4.7	65
11	Seasonal and diel patterns of abundance and activity of viruses in the Red Sea. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29738-29747.	3.3	27
12	Unique Photochemistry Observed in a New Microbial Rhodopsin. Journal of Physical Chemistry Letters, 2019, 10, 5117-5121.	2.1	11
13	MerMAIDs: a family of metagenomically discovered marine anion-conducting and intensely desensitizing channelrhodopsins. Nature Communications, 2019, 10, 3315.	5.8	56
14	An uncultured marine cyanophage encodes an active phycobilisome proteolysis adaptor protein NblA. Environmental Microbiology Reports, 2019, 11, 848-854.	1.0	4
15	A novel uncultured marine cyanophage lineage with lysogenic potential linked to a putative marine Synechococcus â€˜relicâ€™ prophage. Environmental Microbiology Reports, 2019, 11, 598-604.	1.0	13
16	Engineered Functional Recovery of Microbial Rhodopsin Without Retinalâ€Binding Lysine. Photochemistry and Photobiology, 2019, 95, 1116-1121.	1.3	7
17	Casting light on Asgardarchaeota metabolism in a sunlit microoxic niche. Nature Microbiology, 2019, 4, 1129-1137.	5.9	96
18	Ultrafast Dynamics of Heliorhodopsins. Journal of Physical Chemistry B, 2019, 123, 2507-2512.	1.2	24

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19	Crystal structure of heliorhodopsin. Nature, 2019, 574, 132-136.	13.7	71
20	Anion binding to mutants of the Schiff base counterion in heliorhodopsin 48C12. Physical Chemistry Chemical Physics, 2019, 21, 23663-23671.	1.3	18
21	Heliorhodopsins are absent in diderm (Gramâ€negative) bacteria: Some thoughts and possible implications for activity. Environmental Microbiology Reports, 2019, 11, 419-424.	1.0	29
22	Cyanophage-encoded lipid desaturases: oceanic distribution, diversity and function. ISME Journal, 2018, 12, 343-355.	4.4	23
23	Evolution and molecular mechanism of fourâ€electron reducing ferredoxinâ€dependent bilin reductases from oceanic phages. FEBS Journal, 2018, 285, 339-356.	2.2	17
24	Adaptation to sub-optimal hosts is a driver of viral diversification in the ocean. Nature Communications, 2018, 9, 4698.	5.8	39
25	Resonance Raman Investigation of the Chromophore Structure of Heliorhodopsins. Journal of Physical Chemistry Letters, 2018, 9, 6431-6436.	2.1	33
26	Mutation Study of Heliorhodopsin 48C12. Biochemistry, 2018, 57, 5041-5049.	1.2	32
27	The Use of a Chimeric Rhodopsin Vector for the Detection of New Proteorhodopsins Based on Color. Frontiers in Microbiology, 2018, 9, 439.	1.5	17
28	A distinct abundant group of microbial rhodopsins discovered using functional metagenomics. Nature, 2018, 558, 595-599.	13.7	190
29	Novel Abundant Oceanic Viruses of Uncultured Marine Group II Euryarchaeota. Current Biology, 2017, 27, 1362-1368.	1.8	81
30	A myovirus encoding both photosystem I and II proteins enhances cyclic electron flow in infected Prochlorococcus cells. Nature Microbiology, 2017, 2, 1350-1357.	5.9	74
31	Functional marine metagenomic screening for anti-quorum sensing and anti-biofilm activity. Biofouling, 2017, 33, 1-13.	0.8	35
32	Marine Bacterial and Archaeal Ion-Pumping Rhodopsins: Genetic Diversity, Physiology, and Ecology. Microbiology and Molecular Biology Reviews, 2016, 80, 929-954.	2.9	173
33	New biosynthetic pathway for pink pigments from uncultured oceanic viruses. Environmental Microbiology, 2016, 18, 4337-4347.	1.8	23
34	Functional metagenomic screen reveals new and diverse microbial rhodopsins. ISME Journal, 2016, 10, 2331-2335.	4.4	38
35	Closing the gaps on the viral photosystemâ€<scp>I</scp>â€...psa<scp>DCAB</scp> gene organization. Environmental Microbiology, 2015, 17, 5100-5108.	1.8	7
36	Diversity of viral photosystem-I psaA genes. ISME Journal, 2015, 9, 1892-1898.	4.4	10

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37	Natureâ€™s toolkit for microbial rhodopsin ion pumps. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6538-6539.	3.3	55
38	Comparative metagenomic analyses reveal viral-induced shifts of host metabolism towards nucleotide biosynthesis. Microbiome, 2014, 2, 9.	4.9	66
39	Bacterial, archaeal and viralâ€like rhodopsins from the <scp>R</scp>ed <scp>S</scp>ea. Environmental Microbiology Reports, 2013, 5, 475-482.	1.0	60
40	Preparation of BAC Libraries from Marine Microbial Populations. Methods in Enzymology, 2013, 531, 111-122.	0.4	0
41	Proteorhodopsins: Widespread Microbial Light-Driven Proton Pumps. , 2013, , 280-285.		13
42	Global abundance of microbial rhodopsins. ISME Journal, 2013, 7, 448-451.	4.4	104
43	Cyanophage tRNAs may have a role in cross-infectivity of oceanic Prochlorococcus and Synechococcus hosts. ISME Journal, 2012, 6, 619-628.	4.4	50
44	The evolution of photosystem I in light of phage-encoded reaction centres. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 3400-3405.	1.8	17
45	<scp>D</scp>ead <scp>S</scp>ea rhodopsins revisited. Environmental Microbiology Reports, 2012, 4, 617-621.	1.0	7
46	Potential for phosphite and phosphonate utilization by Prochlorococcus. ISME Journal, 2012, 6, 827-834.	4.4	77
47	Viral clones from the GOS expedition with an unusual photosystem-I gene cassette organization. ISME Journal, 2012, 6, 1617-1620.	4.4	14
48	Microbial rhodopsins on leaf surfaces of terrestrial plants. Environmental Microbiology, 2012, 14, 140-146.	1.8	78
49	Bacterial anoxygenic photosynthesis on plant leaf surfaces. Environmental Microbiology Reports, 2012, 4, 209-216.	1.0	94
50	Reconstructing a puzzle: existence of cyanophages containing both photosystemâ€I and photosystemâ€II gene suites inferred from oceanic metagenomic datasets. Environmental Microbiology, 2011, 13, 24-32.	1.8	46
51	Is dinitrogen fixation significant in the Levantine Basin, East Mediterranean Sea?. Environmental Microbiology, 2011, 13, 854-871.	1.8	64
52	Comparative metagenomics of microbial traits within oceanic viral communities. ISME Journal, 2011, 5, 1178-1190.	4.4	135
53	Marine cyanophages: tinkering with the electron transport chain. ISME Journal, 2011, 5, 1568-1570.	4.4	23
54	Comparative community genomics in the Dead Sea: an increasingly extreme environment. ISME Journal, 2010, 4, 399-407.	4.4	101

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55	Microbial community genomics in eastern Mediterranean Sea surface waters. ISME Journal, 2010, 4, 78-87.	4.4	66
56	Diversity of active marine picoeukaryotes in the Eastern Mediterranean Sea unveiled using photosystem-II psbA transcripts. ISME Journal, 2010, 4, 1044-1052.	4.4	43
57	The Light-Driven Proton Pump Proteorhodopsin Enhances Bacterial Survival during Tough Times. PLoS Biology, 2010, 8, e1000359.	2.6	124
58	Proteorhodopsin-Bearing Bacteria in Antarctic Sea Ice. Applied and Environmental Microbiology, 2010, 76, 5918-5925.	1.4	71
59	BchY-Based Degenerate Primers Target All Types of Anoxygenic Photosynthetic Bacteria in a Single PCR. Applied and Environmental Microbiology, 2009, 75, 7556-7559.	1.4	21
60	Bias in assessments of marine SAR11 biodiversity in environmental fosmid and BAC libraries?. ISME Journal, 2009, 3, 1117-1119.	4.4	13
61	Photosystem I gene cassettes are present in marine virus genomes. Nature, 2009, 461, 258-262.	13.7	195
62	Reverse dissimilatory sulfite reductase as phylogenetic marker for a subgroup of sulfurâ€oxidizing prokaryotes. Environmental Microbiology, 2009, 11, 289-299.	1.8	162
63	Comparative analyses of actinobacterial genomic fragments from Lake Kinneret. Environmental Microbiology, 2009, 11, 3189-3200.	1.8	19
64	Widespread distribution of proteorhodopsins in freshwater and brackish ecosystems. ISME Journal, 2008, 2, 656-662.	4.4	97
65	Seasonal dynamics of the endosymbiotic, nitrogen-fixing cyanobacterium Richelia intracellularis in the eastern Mediterranean Sea. ISME Journal, 2008, 2, 911-923.	4.4	76
66	Metagenomic retrieval of a ribosomal DNA repeat array from an uncultured marine alveolate. Environmental Microbiology, 2008, 10, 1335-1343.	1.8	31
67	The use of denaturing gradient gel electrophoresis with fully degenerate pufM primers to monitor aerobic anoxygenic phototrophic assemblages. Limnology and Oceanography: Methods, 2008, 6, 427-440.	1.0	15
68	Section 4 Update - BAC library construction from marine microbial assemblages. , 2008, , 1863-1879.		0
69	Adaptation and spectral tuning in divergent marine proteorhodopsins from the eastern Mediterranean and the Sargasso Seas. ISME Journal, 2007, 1, 48-55.	4.4	65
70	Viral photosynthetic reaction center genes and transcripts in the marine environment. ISME Journal, 2007, 1, 492-501.	4.4	122
71	Assessing diversity and biogeography of aerobic anoxygenic phototrophic bacteria in surface waters of the Atlantic and Pacific Oceans using the Global Ocean Sampling expedition metagenomes. Environmental Microbiology, 2007, 9, 1464-1475.	1.8	156
72	Molecular ecology of nifH genes and transcripts in the eastern Mediterranean Sea. Environmental Microbiology, 2007, 9, 2354-2363.	1.8	105

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73	An elusive marine photosynthetic bacterium is finally unveiled. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2561-2562.	3.3	8
74	Potential photosynthesis gene recombination between Prochlorococcus and Synechococcus via viral intermediates. Environmental Microbiology, 2005, 7, 1505-1513.	1.8	149
75	Putative novel photosynthetic reaction centre organizations in marine aerobic anoxygenic photosynthetic bacteria: insights from metagenomics and environmental genomics. Environmental Microbiology, 2005, 7, 2027-2033.	1.8	33
76	New Insights into Metabolic Properties of Marine Bacteria Encoding Proteorhodopsins. PLoS Biology, 2005, 3, e273.	2.6	218
77	Roseobacter -Like Bacteria in Red and Mediterranean Sea Aerobic Anoxygenic Photosynthetic Populations. Applied and Environmental Microbiology, 2005, 71, 344-353.	1.4	78
78	Novel Primers Reveal Wider Diversity among Marine Aerobic Anoxygenic Phototrophs. Applied and Environmental Microbiology, 2005, 71, 8958-8962.	1.4	80
79	Communityâ€Level Analysis of Phototrophy: psbA Gene Diversity. Methods in Enzymology, 2005, 397, 372-380.	0.4	3
80	Darwinian adaptation of proteorhodopsin to different light intensities in the marine environment. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14824-14829.	3.3	96
81	The use of DGGE analyses to explore eastern Mediterranean and Red Sea marine picophytoplankton assemblages. Environmental Microbiology, 2004, 6, 528-534.	1.8	30
82	Different SAR86 subgroups harbour divergent proteorhodopsins. Environmental Microbiology, 2004, 6, 903-910.	1.8	106
83	To BAC or not to BAC: marine ecogenomics. Current Opinion in Biotechnology, 2004, 15, 187-190.	3.3	56
84	Characterization of RS29, a blue-green proteorhodopsin variant from the Red Sea. Photochemical and Photobiological Sciences, 2004, 3, 459-462.	1.6	46
85	Isolation and characterization of Erythrobacter sp. strains from the upper ocean. Archives of Microbiology, 2003, 180, 327-338.	1.0	149
86	Molecular diversity among marine picophytoplankton as revealed by psbA analyses. Environmental Microbiology, 2003, 5, 212-216.	1.8	94
87	Novel Proteorhodopsin variants from the Mediterranean and Red Seas. Environmental Microbiology, 2003, 5, 842-849.	1.8	109
88	Diversification and spectral tuning in marine proteorhodopsins. EMBO Journal, 2003, 22, 1725-1731.	3.5	284
89	Proteorhodopsin genes are distributed among divergent marine bacterial taxa. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12830-12835.	3.3	255
90	Comparative Genomic Analysis of Archaeal Genotypic Variants in a Single Population and in Two Different Oceanic Provinces. Applied and Environmental Microbiology, 2002, 68, 335-345.	1.4	164

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91	Unsuspected diversity among marine aerobic anoxygenic phototrophs. Nature, 2002, 415, 630-633.	13.7	380
92	Phylogenetic analysis of ribosomal RNA operons from uncultivated coastal marine bacterioplankton. Environmental Microbiology, 2001, 3, 323-331.	1.8	152
93	Proteorhodopsin phototrophy in the ocean. Nature, 2001, 411, 786-789.	13.7	740
94	Construction and analysis of bacterial artificial chromosome libraries from a marine microbial assemblage. Environmental Microbiology, 2000, 2, 516-529.	1.8	313
95	[27] Functional expression of mdr and mdr-like cDNAs in Escherichia coli. Methods in Enzymology, 1998, 292, 370-382.	0.4	2
96	The trypanosomatid Leptomonas collosoma 7SL RNA gene. Analysis of elements controlling its expression. Nucleic Acids Research, 1997, 25, 4977-4984.	6.5	21
97	Karyotype analysis of the monogenetic trypanosomatid Leptomonas collosoma. Molecular and Biochemical Parasitology, 1994, 66, 71-81.	0.5	1
98	Identification of a tRNA-like molecule that copurifies with the 7SL RNA of Trypanosoma brucei. Molecular and Biochemical Parasitology, 1993, 57, 223-229.	0.5	33