Caroline S Harwood

List of Publications by Year
in descending order

110	10,779	31976	33894
papers	citations	53 h-index	99 g-index

121	121	121	8364
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	THE Î²-KETOADIPATE PATHWAY AND THE BIOLOGY OF SELF-IDENTITY. Annual Review of Microbiology, 1996, 50, 553-590.	7.3	915
2	A chemosensory system that regulates biofilm formation through modulation of cyclic diguanylate levels. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14422-14427.	7.1	734
3	Complete genome sequence of the metabolically versatile photosynthetic bacterium Rhodopseudomonas palustris. Nature Biotechnology, 2004, 22, 55-61.	17.5	675
4	Identification of FleQ from Pseudomonas aeruginosa as a câ€diâ€GMPâ€responsive transcription factor. Molecular Microbiology, 2008, 69, 376-389.	2.5	606
5	Pseudomonas aeruginosa Rugose Small-Colony Variants Have Adaptations That Likely Promote Persistence in the Cystic Fibrosis Lung. Journal of Bacteriology, 2009, 191, 3492-3503.	2.2	372
6	The Pseudomonas aeruginosa RpoS regulon and its relationship to quorum sensing. Molecular Microbiology, 2004, 51, 973-985.	2.5	341
7	Anaerobic metabolism of aromatic compounds via the benzoyl-CoA pathway. FEMS Microbiology Reviews, 1998, 22, 439-458.	8.6	305
8	Carbon dioxide fixation as a central redox cofactor recycling mechanism in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11669-11675.	7.1	267
9	Self-produced exopolysaccharide is a signal that stimulates biofilm formation in Pseudomonas aeruginosa. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20632-20636.	7.1	265
10	Responses ofPseudomonas aeruginosato low oxygen indicate that growth in the cystic fibrosis lung is by aerobic respiration. Molecular Microbiology, 2007, 65, 153-165.	2.5	263
11	The FleQ protein from Pseudomonas aeruginosa functions as both a repressor and an activator to control gene expression from the pel operon promoter in response to c-di-GMP. Nucleic Acids Research, 2012, 40, 7207-7218.	14.5	244
12	Metabolic Diversity in Aromatic Compound Utilization by Anaerobic Microbes. Annual Review of Microbiology, 2002, 56, 345-369.	7.3	205
13	Subcellular location characteristics of the Pseudomonas aeruginosa GGDEF protein, WspR, indicate that it produces cyclicâ€diâ€GMP in response to growth on surfaces. Molecular Microbiology, 2007, 66, 1459-1473.	2.5	205
14	Photobiological production of hydrogen gas as a biofuel. Current Opinion in Biotechnology, 2010, 21, 244-251.	6.6	188
15	Construction and use of a new broad-host-range lacZ transcriptional fusion vector, pHRP309, for Gram â" bacteria. Gene, 1993, 133, 23-30.	2.2	173
16	Regulation of benzoate-CoA ligase inRhodopseudomonas palustris. FEMS Microbiology Letters, 1991, 83, 199-203.	1.8	167
17	Cyclic diguanosine monophosphate represses bacterial flagella synthesis by interacting with the Walker A motif of the enhancer-binding protein FleQ. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18478-18483.	7.1	162
18	Mechanistic insights into c-di-GMPâ€"dependent control of the biofilm regulator FleQ from Pseudomonas aeruginosa. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E209-18.	7.1	160

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19	Functional Genomic Analysis of Three Nitrogenase Isozymes in the Photosynthetic Bacterium Rhodopseudomonas palustris. Journal of Bacteriology, 2005, 187, 7784-7794.	2.2	154
20	Redirection of Metabolism for Biological Hydrogen Production. Applied and Environmental Microbiology, 2007, 73, 1665-1671.	3.1	149
21	Surface sensing and lateral subcellular localization of <scp>WspA</scp>, the receptor in a chemosensoryâ€like system leading to câ€diâ€<scp>GMP</scp> production. Molecular Microbiology, 2012, 86, 720-729.	2.5	145
22	BenR, a XylS Homologue, Regulates Three Different Pathways of Aromatic Acid Degradation in Pseudomonas putida. Journal of Bacteriology, 2000, 182, 6339-6346.	2.2	138
23	Candida albicans Ethanol Stimulates Pseudomonas aeruginosa WspR-Controlled Biofilm Formation as Part of a Cyclic Relationship Involving Phenazines. PLoS Pathogens, 2014, 10, e1004480.	4.7	132
24	Multiple genome sequences reveal adaptations of a phototrophic bacterium to sediment microenvironments. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18543-18548.	7.1	131
25	A pathway for biological methane production using bacterial iron-only nitrogenase. Nature Microbiology, 2018, 3, 281-286.	13.3	131
26	NahY, a Catabolic Plasmid-Encoded Receptor Required for Chemotaxis of Pseudomonas putida to the Aromatic Hydrocarbon Naphthalene. Journal of Bacteriology, 1999, 181, 3310-3316.	2.2	130
27	Subcellular Clustering of the Phosphorylated WspR Response Regulator Protein Stimulates Its Diguanylate Cyclase Activity. MBio, 2013, 4, e00242-13.	4.1	114
28	Cluster II che Genes from Pseudomonas aeruginosa Are Required for an Optimal Chemotactic Response. Journal of Bacteriology, 2002, 184, 4374-4383.	2.2	111
29	Regulation of Uptake Hydrogenase and Effects of Hydrogen Utilization on Gene Expression in Rhodopseudomonas palustris. Journal of Bacteriology, 2006, 188, 6143-6152.	2.2	111
30	Aryl-homoserine lactone quorum sensing in stem-nodulating photosynthetic bradyrhizobia. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7183-7188.	7.1	111
31	Isovaleryl-homoserine lactone, an unusual branched-chain quorum-sensing signal from the soybean symbiont Bradyrhizobium japonicum. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16765-16770.	7.1	104
32	Calvin Cycle Flux, Pathway Constraints, and Substrate Oxidation State Together Determine the H ₂ Biofuel Yield in Photoheterotrophic Bacteria. MBio, 2011, 2, .	4.1	101
33	Heterogeneity in surface sensing suggests a division of labor in Pseudomonas aeruginosa populations. ELife, 2019, 8, .	6.0	96
34	BadR, a New MarR Family Member, Regulates Anaerobic Benzoate Degradation by Rhodopseudomonas palustris in Concert with AadR, an Fnr Family Member. Journal of Bacteriology, 1999, 181, 2102-2109.	2.2	92
35	Non-growing Rhodopseudomonas palustris Increases the Hydrogen Gas Yield from Acetate by Shifting from the Glyoxylate Shunt to the Tricarboxylic Acid Cycle. Journal of Biological Chemistry, 2014, 289, 1960-1970.	3.4	85
36	Electron Transfer to Nitrogenase in Different Genomic and Metabolic Backgrounds. Journal of Bacteriology, 2018, 200, .	2.2	85

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37	Production of Hydrogen Gas from Light and the Inorganic Electron Donor Thiosulfate by Rhodopseudomonas palustris. Applied and Environmental Microbiology, 2010, 76, 7717-7722.	3.1	84
38	Two differentPseudomonas aeruginosachemosensory signal transduction complexes localize to cell poles and form and remould in stationary phase. Molecular Microbiology, 2006, 61, 106-118.	2.5	81
39	Reversible N^{Îµ}â€lysine acetylation regulates the activity of acylâ€CoA synthetases involved in anaerobic benzoate catabolism in Rhodopseudomonas palustris. Molecular Microbiology, 2010, 76, 874-888.	2.5	80
40	FleQ DNA Binding Consensus Sequence Revealed by Studies of FleQ-Dependent Regulation of Biofilm Gene Expression in Pseudomonas aeruginosa. Journal of Bacteriology, 2016, 198, 178-186.	2.2	79
41	Defining Electron Bifurcation in the Electron-Transferring Flavoprotein Family. Journal of Bacteriology, 2017, 199, .	2.2	78
42	Light-driven carbon dioxide reduction to methane by nitrogenase in a photosynthetic bacterium. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10163-10167.	7.1	74
43	Assigning chemoreceptors to chemosensory pathways in Pseudomonas aeruginosa. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12809-12814.	7.1	72
44	Determination and Comparison of the Baseline Proteomes of the Versatile MicrobeRhodopseudomonaspalustrisunder Its Major Metabolic States. Journal of Proteome Research, 2006, 5, 287-298.	3.7	69
45	Hydrogen Production by Photoreactive Nanoporous Latex Coatings of Nongrowing Rhodopseudomonas palustris CGA009. Biotechnology Progress, 2007, 23, 124-130.	2.6	69
46	Identification of a Malate Chemoreceptor in Pseudomonas aeruginosa by Screening for Chemotaxis Defects in an Energy Taxis-Deficient Mutant. Applied and Environmental Microbiology, 2007, 73, 7793-7795.	3.1	67
47	Progress toward a biomimetic leaf: 4,000 h of hydrogen production by coatingâ€stabilized nongrowing photosynthetic Rhodopseudomonas palustris. Biotechnology Progress, 2010, 26, 907-918.	2.6	66
48	LuxR- and LuxI-Type Quorum-Sensing Circuits Are Prevalent in Members of the Populus deltoides Microbiome. Applied and Environmental Microbiology, 2013, 79, 5745-5752.	3.1	66
49	The pimFABCDE operon from Rhodopseudomonas palustris mediates dicarboxylic acid degradation and participates in anaerobic benzoate degradation. Microbiology (United Kingdom), 2005, 151, 727-736.	1.8	64
50	Characterization of Anaerobic Catabolism of p-Coumarate in Rhodopseudomonas palustris by Integrating Transcriptomics and Quantitative Proteomics. Molecular and Cellular Proteomics, 2008, 7, 938-948.	3.8	64
51	Signaling Components in Bacterial Locomotion and Sensory Reception. Journal of Bacteriology, 2000, 182, 1459-1471.	2.2	60
52	Essential Genome of the Metabolically Versatile Alphaproteobacterium Rhodopseudomonas palustris. Journal of Bacteriology, 2016, 198, 867-876.	2.2	60
53	How Posttranslational Modification of Nitrogenase Is Circumvented in Rhodopseudomonas palustris Strains That Produce Hydrogen Gas Constitutively. Applied and Environmental Microbiology, 2012, 78, 1023-1032.	3.1	58
54	2-Ketocyclohexanecarboxyl Coenzyme A Hydrolase, the Ring Cleavage Enzyme Required for Anaerobic Benzoate Degradation by Rhodopseudomonas palustris. Journal of Bacteriology, 1998, 180, 2330-2336.	2.2	58

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55	Reductive, Coenzyme A-Mediated Pathway for 3-Chlorobenzoate Degradation in the Phototrophic Bacterium Rhodopseudomonas palustris. Applied and Environmental Microbiology, 2001, 67, 1396-1399.	3.1	56
56	Anaerobic p -Coumarate Degradation by Rhodopseudomonas palustris and Identification of CouR, a MarR Repressor Protein That Binds p -Coumaroyl Coenzyme A. Journal of Bacteriology, 2012, 194, 1960-1967.	2.2	56
57	FixK, a global regulator of microaerobic growth, controls photosynthesis in Rhodopseudomonas palustris. Molecular Microbiology, 2010, 75, 1007-1020.	2.5	55
58	An aerotaxis transducer gene fromPseudomonas putida. FEMS Microbiology Letters, 2000, 182, 177-183.	1.8	54
59	Burkholderia cenocepacia integrates cis -2-dodecenoic acid and cyclic dimeric guanosine monophosphate signals to control virulence. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13006-13011.	7.1	54
60	A new era for electron bifurcation. Current Opinion in Chemical Biology, 2018, 47, 32-38.	6.1	54
61	Iron-Only and Vanadium Nitrogenases: Fail-Safe Enzymes or Something More?. Annual Review of Microbiology, 2020, 74, 247-266.	7.3	51
62	2-Hydroxycyclohexanecarboxyl Coenzyme A Dehydrogenase, an Enzyme Characteristic of the Anaerobic Benzoate Degradation Pathway Used by Rhodopseudomonas palustris. Journal of Bacteriology, 2000, 182, 2753-2760.	2.2	50
63	Activity of the Rhodopseudomonas palustris p-Coumaroyl-Homoserine Lactone-Responsive Transcription Factor RpaR. Journal of Bacteriology, 2011, 193, 2598-2607.	2.2	45
64	HbaR, a 4-Hydroxybenzoate Sensor and FNR-CRP Superfamily Member, Regulates Anaerobic 4-Hydroxybenzoate Degradation by Rhodopseudomonas palustris. Journal of Bacteriology, 2000, 182, 100-106.	2.2	40
65	Identification of a chemotaxis gene region fromPseudomonas putida. FEMS Microbiology Letters, 1998, 159, 267-273.	1.8	39
66	Anaerobic Metabolism of Cyclohex-1-Ene-1-Carboxylate, a Proposed Intermediate of Benzoate Degradation, by Rhodopseudomonas palustris. Applied and Environmental Microbiology, 1994, 60, 1775-1782.	3.1	38
67	Rhodopseudomonas palustris CGA009 Has Two Functional ppsR Genes, Each of Which Encodes a Repressor of Photosynthesis Gene Expression. Biochemistry, 2006, 45, 14441-14451.	2.5	34
68	BadR and BadM Proteins Transcriptionally Regulate Two Operons Needed for Anaerobic Benzoate Degradation by Rhodopseudomonas palustris. Applied and Environmental Microbiology, 2015, 81, 4253-4262.	3.1	34
69	A plant-responsive bacterial-signaling system senses an ethanolamine derivative. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9785-9790.	7.1	33
70	The Wsp system ofPseudomonas aeruginosalinks surface sensing and cell envelope stress. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117633119.	7.1	33
71	Anaerobic metabolism of aromatic compounds via the benzoyl-CoA pathway. FEMS Microbiology Reviews, 1998, 22, 439-458.	8.6	31
72	The path of electron transfer to nitrogenase in a phototrophic alphaâ€proteobacterium. Environmental Microbiology, 2018, 20, 2500-2508.	3.8	26

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73	Apo-bacteriophytochromes modulate bacterial photosynthesis in response to low light. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E237-44.	7.1	25
74	BadM Is a Transcriptional Repressor and One of Three Regulators That Control Benzoyl Coenzyme A Reductase Gene Expression in Rhodopseudomonas palustris. Journal of Bacteriology, 2006, 188, 8662-8665.	2.2	23
75	A LuxR Homolog in a Cottonwood Tree Endophyte That Activates Gene Expression in Response to a Plant Signal or Specific Peptides. MBio, 2016, 7, .	4.1	23
76	Genes essential for phototrophic growth by a purple alphaproteobacterium. Environmental Microbiology, 2017, 19, 3567-3578.	3.8	23
77	Use of the Rhodopseudomonas palustris genome sequence to identify a single amino acid that contributes to the activity of a coenzyme A ligase with chlorinated substrates. Molecular Microbiology, 2004, 55, 1151-1159.	2.5	22
78	Molecular Basis of Bacterial Longevity. MBio, 2017, 8, .	4.1	22
79	Bacterial Longevity Requires Protein Synthesis and a Stringent Response. MBio, 2019, 10, .	4.1	17
80	Identification of a p -Coumarate Degradation Regulon in Rhodopseudomonas palustris by Xpression, an Integrated Tool for Prokaryotic RNA-Seq Data Processing. Applied and Environmental Microbiology, 2012, 78, 6812-6818.	3.1	15
81	Redox Regulation of a Light-Harvesting Antenna Complex in an Anoxygenic Phototroph. MBio, 2019, 10, .	4.1	14
82	Genome Sequences of Eight Bacterial Species Found in Coculture with the Haptophyte Chrysochromulina tobin. Genome Announcements, 2016, 4, .	0.8	13
83	Degradation of cyclic diguanosine monophosphate by a hybrid two-component protein protects Azoarcus sp. strain CIB from toluene toxicity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13174-13179.	7.1	13
84	Metabolic Reprogramming and Longevity in Quiescence. Annual Review of Microbiology, 2022, 76, 91-111.	7.3	13
85	Influence of Energy and Electron Availability on In Vivo Methane and Hydrogen Production by a Variant Molybdenum Nitrogenase. Applied and Environmental Microbiology, 2019, 85, .	3.1	11
86	Transposon sequencing analysis of Bradyrhizobium diazoefficiens 110spc4. Scientific Reports, 2021, 11, 13211.	3.3	11
87	Use of Nonradiochemical DNAse Footprinting to Analyze c-di-GMP Modulation of DNA-Binding Proteins. Methods in Molecular Biology, 2017, 1657, 303-315.	0.9	10
88	Structural basis of transcriptional regulation by CouR, a repressor of coumarate catabolism, in Rhodopseudomonas palustris. Journal of Biological Chemistry, 2018, 293, 11727-11735.	3.4	10
89	Degradation of Aromatic Compounds by Purple Nonsulfur Bacteria. Advances in Photosynthesis and Respiration, 2009, , 577-594.	1.0	10
90	Nitrogenase-Catalyzed Hydrogen Production by Purple Nonsulfur Photosynthetic Bacteria. , 0, , 259-271.		10

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91	Posttranslational modification of a vanadium nitrogenase. MicrobiologyOpen, 2015, 4, 597-603.	3.0	9
92	Clades of Photosynthetic Bacteria Belonging to the Genus Rhodopseudomonas Show Marked Diversity in Light-Harvesting Antenna Complex Gene Composition and Expression. MSystems, 2016, 1, .	3.8	9
93	Responses of Pseudomonas aeruginosa to low oxygen indicate that growth in the cystic fibrosis lung is by aerobic respiration. Molecular Microbiology, 2007, 65, 582-582.	2.5	8
94	A Disjointed Pathway for Malonate Degradation by Rhodopseudomonas palustris. Applied and Environmental Microbiology, 2020, 86, .	3.1	8
95	â€œHot Stuffâ€• The Many Uses of a Radiolabel Assay in Detecting Acyl-Homoserine Lactone Quorum-Sensing Signals. Methods in Molecular Biology, 2018, 1673, 35-47.	0.9	8
96	Title is missing!. , 2007, 23, 124.		8
97	A Genetic Study of Nif -Associated Genes in a Hyperthermophilic Methanogen. Microbiology Spectrum, 2022, 10, e0209321.	3.0	7
98	CsrA-Controlled Proteins Reveal New Dimensions of Acinetobacter baumannii Desiccation Tolerance. Journal of Bacteriology, 2022, 204, e0047921.	2.2	7
99	Functional divergence of annotated l-isoaspartate O-methyltransferases in an Î±-proteobacterium. Journal of Biological Chemistry, 2019, 294, 2854-5714.	3.4	6
100	Rhodopseudomonas palustris. Trends in Microbiology, 2022, 30, 307-308.	7.7	5
101	Evolutionary Relationships Among Antenna Proteins of Purple Phototrophic Bacteria. Advances in Photosynthesis and Respiration, 2012, , 253-264.	1.0	4
102	A polymorphism in the oxygen-responsive repressor PpsR2 confers a growth advantage to Rhodopseudomonas palustris under low light. Photosynthesis Research, 2016, 129, 199-204.	2.9	3
103	Structural basis for a bacterial Pip system plant effector recognition protein. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	3
104	Identification of a chemotaxis gene region from Pseudomonas putida. FEMS Microbiology Letters, 1998, 159, 267-273.	1.8	2
105	An aerotaxis transducer gene from Pseudomonas putida. FEMS Microbiology Letters, 2000, 182, 177-183.	1.8	2
106	Charging State Analysis of Transfer RNA from an Î±-proteobacterium. Bio-protocol, 2020, 10, e3834.	0.4	2
107	Ribosome Purification from an Î±-proteobacterium and rRNA Analysis by Northern Blot. Bio-protocol, 2020, 10, e3835.	0.4	1
108	David T. Gibson: From biodegradation to biocatalysis:. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16980-16981.	7.1	0

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109	Role of Cyclic Di-GMP in Pseudomonas aeruginosa Biofilm Development. , 2014, , 156-172.		0
110	Applications of Stress Response Studies: Biofuel Production. , 2014, , 473-480.		0