James G Ferry

List of Publications by Year
in descending order

118	9,343	46	93
papers	citations	h-index	g-index
		50276	40979

125	125	125	8987
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Frontiers, Opportunities, and Challenges in Biochemical and Chemical Catalysis of CO₂ Fixation. Chemical Reviews, 2013, 113, 6621-6658.	47.7	1,786
2	The Genome of <i>M. acetivorans</i> Reveals Extensive Metabolic and Physiological Diversity. Genome Research, 2002, 12, 532-542.	5.5	573
3	Prokaryotic carbonic anhydrases. FEMS Microbiology Reviews, 2000, 24, 335-366.	8.6	566
4	Carbonic Anhydrase: New Insights for an Ancient Enzyme. Journal of Biological Chemistry, 2001, 276, 48615-48618.	3.4	478
5	<i>Methanosarcina acetivorans</i> sp. nov., an Acetotrophic Methane-Producing Bacterium Isolated from Marine Sediments. Applied and Environmental Microbiology, 1984, 47, 971-978.	3.1	306
6	Enzymology of one-carbon metabolism in methanogenic pathways. FEMS Microbiology Reviews, 1999, 23, 13-38.	8.6	258
7	A Closer Look at the Active Site of Î³-Class Carbonic Anhydrases:Â High-Resolution Crystallographic Studies of the Carbonic Anhydrase fromMethanosarcina thermophilaâ€,â€¡. Biochemistry, 2000, 39, 9222-9231.	2.5	175
8	The Î³ class of carbonic anhydrases. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 374-381.	2.3	152
9	A Plant-Type (Î²-Class) Carbonic Anhydrase in the Thermophilic Methanoarchaeon<i>Methanobacterium thermoautotrophicum</i>. Journal of Bacteriology, 1999, 181, 6247-6253.	2.2	150
10	How to Make a Living by Exhaling Methane. Annual Review of Microbiology, 2010, 64, 453-473.	7.3	149
11	Fundamentals of methanogenic pathways that are key to the biomethanation of complex biomass. Current Opinion in Biotechnology, 2011, 22, 351-357.	6.6	141
12	Biochemistry of Methanogenesis. Critical Reviews in Biochemistry and Molecular Biology, 1992, 27, 473-503.	5.2	139
13	A Role for Iron in an Ancient Carbonic Anhydrase. Journal of Biological Chemistry, 2004, 279, 6683-6687.	3.4	133
14	Gamma carbonic anhydrases in plant mitochondria. Plant Molecular Biology, 2004, 55, 193-207.	3.9	124
15	Electron Transport in the Pathway of Acetate Conversion to Methane in the Marine Archaeon Methanosarcina acetivorans. Journal of Bacteriology, 2006, 188, 702-710.	2.2	122
16	An unconventional pathway for reduction of CO2 to methane in CO-grown Methanosarcina acetivorans revealed by proteomics. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17921-17926.	7.1	119
17	Reversing methanogenesis to capture methane for liquid biofuel precursors. Microbial Cell Factories, 2016, 15, 11.	4.0	116
18	Crystal Structure of the â€œcabâ€•type Î² Class Carbonic Anhydrase from the Archaeon Methanobacterium thermoautotrophicum. Journal of Biological Chemistry, 2001, 276, 10299-10305.	3.4	114

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19	The Stepwise Evolution of Early Life Driven by Energy Conservation. Molecular Biology and Evolution, 2006, 23, 1286-1292.	8.9	109
20	Urkinase: Structure of Acetate Kinase, a Member of the ASKHA Superfamily of Phosphotransferases. Journal of Bacteriology, 2001, 183, 680-686.	2.2	97
21	Production and Consumption of H ₂ during Growth of <i>Methanosarcina</i> spp. on Acetate. Applied and Environmental Microbiology, 1985, 49, 247-249.	3.1	97
22	Kinetic and Spectroscopic Characterization of the Gamma-Carbonic Anhydrase from the MethanoarchaeonMethanosarcina thermophilaâ€. Biochemistry, 1999, 38, 13119-13128.	2.5	94
23	Quantitative Proteomic and Microarray Analysis of the ArchaeonMethanosarcinaacetivoransGrown with Acetate versus Methanol. Journal of Proteome Research, 2007, 6, 759-771.	3.7	93
24	A Ferredoxin- and F ₄₂₀ H ₂ -Dependent, Electron-Bifurcating, Heterodisulfide Reductase with Homologs in the Domains <i>Bacteria</i> and <i>Archaea</i>. MBio, 2017, 8, .	4.1	90
25	Trace methane oxidation studied in several Euryarchaeota under diverse conditions. Archaea, 2005, 1, 303-309.	2.3	89
26	Enzymology of the fermentation of acetate to methane by Methanosarcina thermophila. BioFactors, 1997, 6, 25-35.	5.4	88
27	A biochemical framework for anaerobic oxidation of methane driven by Fe(III)-dependent respiration. Nature Communications, 2018, 9, 1642.	12.8	88
28	The Archetype Î³-Class Carbonic Anhydrase (Cam) Contains Iron When Synthesized in Vivo. Biochemistry, 2009, 48, 817-819.	2.5	85
29	Carbonic anhydrase inhibitors. Inhibition of the prokariotic beta and gamma-class enzymes from Archaea with sulfonamides. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 6001-6006.	2.2	83
30	A Proteasome from the Methanogenic Archaeon Methanosarcina thermophila. Journal of Biological Chemistry, 1995, 270, 28617-28622.	3.4	77
31	Growth of acetotrophic, methane-producing bacteria in a pH auxostat. Current Microbiology, 1984, 11, 227-229.	2.2	75
32	Electron and Proton Flux for Carbon Dioxide Reduction in Methanosarcina barkeri During Direct Interspecies Electron Transfer. Frontiers in Microbiology, 2018, 9, 3109.	3.5	75
33	The chemical biology of methanogenesis. Planetary and Space Science, 2010, 58, 1775-1783.	1.7	72
34	<i>Methanogenesis in Marine Sediments</i>. Annals of the New York Academy of Sciences, 2008, 1125, 147-157.	3.8	71
35	Methanolobus zinderi sp. nov., a methylotrophic methanogen isolated from a deep subsurface coal seam. International Journal of Systematic and Evolutionary Microbiology, 2009, 59, 1064-1069.	1.7	71
36	A Structureâˆ’Function Study of a Proton Transport Pathway in the Î³-Class Carbonic Anhydrase fromMethanosarcina thermophilaâ€. Biochemistry, 2000, 39, 9232-9240.	2.5	70

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37	Characterization of CamH from <i>Methanosarcina thermophila</i> , Founding Member of a Subclass of the Î³ Class of Carbonic Anhydrases. Journal of Bacteriology, 2010, 192, 1353-1360.	2.2	66
38	Electron transport in acetate-grown Methanosarcina acetivorans. BMC Microbiology, 2011, 11, 165.	3.3	66
39	Electron Bifurcation and Confurcation in Methanogenesis and Reverse Methanogenesis. Frontiers in Microbiology, 2018, 9, 1322.	3.5	65
40	Carbonic anhydrase inhibitors. Inhibition of the zinc and cobalt $gamma;-class enzyme from the archaeon Methanosarcina thermophila with anions. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 3327-3331.	2.2	58
41	Reductive dechlorination of trichloroethylene by the CO-reduced CO dehydrogenase enzyme complex fromMethanosarcina thermophila. FEMS Microbiology Letters, 1992, 96, 55-59.	1.8	57
42	Essential Amino Acid Supplementation by Gut Microbes of a Wood-Feeding Cerambycid. Environmental Entomology, 2016, 45, 66-73.	1.4	55
43	Structural and Kinetic Characterization of an Archaeal Î²-Class Carbonic Anhydrase. Journal of Bacteriology, 2000, 182, 6605-6613.	2.2	51
44	Structural and Kinetic Analyses of Arginine Residues in the Active Site of the Acetate Kinase from Methanosarcina thermophila. Journal of Biological Chemistry, 2005, 280, 10731-10742.	3.4	51
45	Life on the thermodynamic edge: Respiratory growth of an acetotrophic methanogen. Science Advances, 2019, 5, eaaw9059.	10.3	50
46	Carbonic anhydrase inhibitors. Inhibition of the beta-class enzyme from the methanoarchaeon Methanobacterium thermoautotrophicum (Cab) with anions. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 4563-4567.	2.2	49
47	Bicarbonate as a Proton Donor in Catalysis by Zn(II)- and Co(II)-Containing Carbonic Anhydrases. Journal of the American Chemical Society, 2001, 123, 5861-5866.	13.7	47
48	Characterization of the Acetate Binding Pocket in the Methanosarcina thermophila Acetate Kinase. Journal of Bacteriology, 2005, 187, 2386-2394.	2.2	47
49	Anion inhibition studies of a Î²-carbonic anhydrase from Clostridium perfringens. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 6706-6710.	2.2	46
50	Chemical Rescue of Proton Transfer in Catalysis by Carbonic Anhydrases in the Î²- and Î³-Classâ€. Biochemistry, 2002, 41, 15429-15435.	2.5	45
51	Metabolic reconstruction of the archaeon methanogen Methanosarcina Acetivorans. BMC Systems Biology, 2011, 5, 28.	3.0	45
52	Proteome ofMethanosarcinaacetivoransPart II:Â Comparison of Protein Levels in Acetate- and Methanol-Grown Cells. Journal of Proteome Research, 2005, 4, 129-135.	3.7	41
53	Proteome of<i>Methanosarcina</i><i>a</i><i>cetivorans</i>Part I:â€‰ An Expanded View of the Biology of the Cell. Journal of Proteome Research, 2005, 4, 112-128.	3.7	40
54	Assessing methanotrophy and carbon fixation for biofuel production by Methanosarcina acetivorans. Microbial Cell Factories, 2016, 15, 10.	4.0	40

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55	Methanosarcina acetivorans: A Model for Mechanistic Understanding of Aceticlastic and Reverse Methanogenesis. Frontiers in Microbiology, 2020, 11, 1806.	3.5	39
56	Methanogenesis. , 0, , 288-314.		39
57	Identification of molybdopterin guanine dinucleotide in formate dehydrogenase fromMethanobacterium formicicum. FEMS Microbiology Letters, 1991, 77, 213-216.	1.8	38
58	Structural and Functional Studies Suggest a Catalytic Mechanism for the Phosphotransacetylase from Methanosarcina thermophila. Journal of Bacteriology, 2006, 188, 1143-1154.	2.2	37
59	Carbonic anhydrase activators: Activation of the archaeal Î²-class (Cab) and Î³-class (Cam) carbonic anhydrases with amino acids and amines. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 6194-6198.	2.2	36
60	Identification of Essential Arginines in the Acetate Kinase from Methanosarcina thermophila. Biochemistry, 2000, 39, 3671-3677.	2.5	35
61	Characterization of the RnfB and RnfG Subunits of the Rnf Complex from the Archaeon Methanosarcina acetivorans. PLoS ONE, 2014, 9, e97966.	2.5	35
62	Proposal for a Hydrogen Bond Network in the Active Site of the Prototypic Î³-Class Carbonic Anhydraseâ€. Biochemistry, 2006, 45, 5149-5157.	2.5	34
63	Identification of Essential Glutamates in the Acetate Kinase from Methanosarcina thermophila. Journal of Bacteriology, 1998, 180, 1129-1134.	2.2	34
64	Genomic and proteomic analyses reveal multiple homologs of genes encoding enzymes of the methanol:coenzyme M methyltransferase system that are differentially expressed in methanol- and acetate-grownMethanosarcina thermophila. FEMS Microbiology Letters, 2002, 215, 127-132.	1.8	33
65	Methane oxidation by anaerobic archaea for conversion to liquid fuels. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 391-401.	3.0	32
66	An Engineered Methanogenic Pathway Derived from the Domains <i>Bacteria</i> and <i>Archaea</i>. MBio, 2010, 1, .	4.1	31
67	MrpA Functions in Energy Conversion during Acetate-Dependent Growth of Methanosarcina acetivorans. Journal of Bacteriology, 2013, 195, 3987-3994.	2.2	31
68	Functional Role of MrpA in the MrpABCDEFG Na ⁺ /H ⁺ Antiporter Complex from the Archaeon Methanosarcina acetivorans. Journal of Bacteriology, 2017, 199, .	2.2	31
69	Crystal Structure of Phosphotransacetylase from the Methanogenic Archaeon Methanosarcina thermophila. Structure, 2004, 12, 559-567.	3.3	30
70	Acetate Metabolism in Anaerobes from the Domain Archaea. Life, 2015, 5, 1454-1471.	2.4	30
71	Site-directed Mutational Analysis of Active Site Residues in the Acetate Kinase from Methanosarcina thermophila. Journal of Biological Chemistry, 2001, 276, 45059-45064.	3.4	29
72	The Role of Histidines in the Acetate Kinase fromMethanosarcina thermophila. Journal of Biological Chemistry, 2000, 275, 33765-33770.	3.4	28

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73	Carbonic anhydrase inhibitors. Inhibition of the zinc and cobalt Î³-class enzyme from the archaeon Methanosarcina thermophila with anions. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 3327-3331.	2.2	28
74	Evidence for a Transition State Analog, MgADP-Aluminum Fluoride-Acetate, in Acetate Kinase from Methanosarcina thermophila. Journal of Biological Chemistry, 2002, 277, 22547-22552.	3.4	27
75	CO in methanogenesis. Annals of Microbiology, 2010, 60, 1-12.	2.6	27
76	Characterization of an Iron-Sulfur Flavoprotein from Methanosarcina thermophila. Journal of Biological Chemistry, 1996, 271, 24023-24028.	3.4	26
77	Cysteine biosynthesis in the Archaea:Methanosarcina thermophilautilizesO-acetylserine sulfhydrylase. FEMS Microbiology Letters, 2000, 189, 205-210.	1.8	25
78	Iron-Sulfur Flavoprotein (Isf) from Methanosarcina thermophila Is the Prototype of a Widely Distributed Family. Journal of Bacteriology, 2001, 183, 6225-6233.	2.2	25
79	MreA Functions in the Global Regulation of Methanogenic Pathways in Methanosarcina acetivorans. MBio, 2012, 3, e00189-12.	4.1	25
80	Reductive dechlorination of trichloroethylene by the CO-reduced CO dehydrogenase enzyme complex from Methanosarcina thermophila. FEMS Microbiology Letters, 1992, 96, 55-60.	1.8	25
81	Investigation of the Methanosarcina thermophila Acetate Kinase Mechanism by Fluorescence Quenching. Biochemistry, 2007, 46, 14170-14176.	2.5	23
82	Crystallization of acetate kinase from <i>Methanosarcina thermophila</i> and prediction of its fold. Protein Science, 1997, 6, 2659-2662.	7.6	23
83	Role of the Fused Corrinoid/Methyl Transfer Protein CmtA during CO-Dependent Growth of Methanosarcina acetivorans. Journal of Bacteriology, 2012, 194, 4161-4168.	2.2	23
84	Carbonic anhydrases of anaerobic microbes. Bioorganic and Medicinal Chemistry, 2013, 21, 1392-1395.	3.0	23
85	Role of Arginine 59 in the Î³-Class Carbonic Anhydrases. Biochemistry, 2002, 41, 669-678.	2.5	22
86	The effect of methanogen growth on mineral substrates: will Ni markers of methanogen-based communities be detectable in the rock record?. Geobiology, 2007, 5, 070210031741001-???.	2.4	22
87	Acetate Kinase and Phosphotransacetylase. Methods in Enzymology, 2011, 494, 219-231.	1.0	21
88	Flavin Mononucleotide-Binding Flavoprotein Family in the Domain Archaea. Journal of Bacteriology, 2004, 186, 90-97.	2.2	20
89	Interaction of ironâ€“sulfur flavoprotein with oxygen and hydrogen peroxide. Biochimica Et Biophysica Acta - General Subjects, 2006, 1760, 858-864.	2.4	19
90	Steady-State Kinetic Analysis of Phosphotransacetylase from Methanosarcina thermophila. Journal of Bacteriology, 2006, 188, 1155-1158.	2.2	19

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91	Role of Trp19 and Tyr200 in catalysis by the Î³-class carbonic anhydrase from Methanosarcina thermophila. Archives of Biochemistry and Biophysics, 2013, 529, 11-17.	3.0	18
92	A Ferredoxin Disulfide Reductase Delivers Electrons to the <i>Methanosarcina barkeri</i> Class III Ribonucleotide Reductase. Biochemistry, 2015, 54, 7019-7028.	2.5	18
93	Prokaryotic Carbonic Anhydrases of Earthâ€™s Environment. Sub-Cellular Biochemistry, 2014, 75, 77-87.	2.4	18
94	Site-Specific Mutational Analysis of a Novel Cysteine Motif Proposed To Ligate the 4Fe-4S Cluster in the Iron-Sulfur Flavoprotein of the Thermophilic MethanoarchaeonMethanosarcina thermophila. Journal of Bacteriology, 2000, 182, 5309-5316.	2.2	17
95	Sulphonamide inhibition studies of the Î²-carbonic anhydrase from the bacterial pathogen<i>Clostridium perfringens</i>. Journal of Enzyme Inhibition and Medicinal Chemistry, 2018, 33, 31-36.	5.2	17
96	Structure and function of an unusual flavodoxin from the domain <i>Archaea</i>. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 25917-25922.	7.1	17
97	Structures of the Iron-Sulfur Flavoproteins from Methanosarcina thermophila and Archaeoglobus fulgidus. Journal of Bacteriology, 2005, 187, 3848-3854.	2.2	16
98	Functional Analysis of the Three TATA Binding Protein Homologs in <i>Methanosarcina acetivorans</i>. Journal of Bacteriology, 2010, 192, 1511-1517.	2.2	16
99	Prokaryotic carbonic anhydrases. FEMS Microbiology Reviews, 2000, 24, 335-366.	8.6	14
100	One-Carbon Metabolism in Methanogenic Anaerobes. , 2003, , 143-156.		12
101	Structural and Biochemical Characterization of a Ferredoxin:Thioredoxin Reductase-like Enzyme from <i>Methanosarcina acetivorans</i>. Biochemistry, 2015, 54, 3122-3128.	2.5	11
102	Comparative Genomics of the Genus Methanohalophilus, Including a Newly Isolated Strain From Kebrit Deep in the Red Sea. Frontiers in Microbiology, 2019, 10, 839.	3.5	10
103	Identification of molybdopterin guanine dinucleotide in formate dehydrogenase from Methanobacterium formicicum. FEMS Microbiology Letters, 1991, 77, 213-216.	1.8	10
104	Structural characterization and physiological function of component B from Methanosarcina thermophila. Archives of Microbiology, 1993, 159, 296-300.	2.2	9
105	Draft Genome Sequence of an Obligately Methylotrophic Methanogen, Methanococcoides methylutens, Isolated from Marine Sediment. Genome Announcements, 2014, 2, .	0.8	9
106	Singleâ€cell genomics reveals pyrrolysineâ€encoding potential in members of uncultivated archaeal candidate division MSBL1. Environmental Microbiology Reports, 2017, 9, 404-410.	2.4	9
107	Toward a mechanistic and physiological understanding of a ferredoxin:disulfide reductase from the domains Archaea and Bacteria. Journal of Biological Chemistry, 2018, 293, 9198-9209.	3.4	9
108	Structural and Biochemical Characterizations of Methanoredoxin from <i>Methanosarcina acetivorans</i>, a Glutaredoxin-Like Enzyme with Coenzyme M-Dependent Protein Disulfide Reductase Activity. Biochemistry, 2016, 55, 313-321.	2.5	8

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109	Enzymology of one-carbon metabolism in methanogenic pathways. FEMS Microbiology Reviews, 1999, 23, 13-38.	8.6	8
110	Acetate-Based Methane Production. , 0, , 153-170.		7
111	Formate dehydrogenase. FEMS Microbiology Letters, 1990, 87, 377-382.	1.8	5
112	Mechanism and Inhibition of theÎ²-Class andÎ³-Class Carbonic Anhydrases. , 0, , 285-300.		2
113	The Biochemistry and Physiology of Respiratory-Driven Reversed Methanogenesis. , 2018, , 183-197.		2
114	The Wolfe cycle of carbon dioxide reduction to methane revisited and the Ralph Stoner Wolfe legacy at 100 years. Advances in Microbial Physiology, 2021, 79, 1-23.	2.4	2
115	Computationally Exploring and Alleviating the Kinetic Bottlenecks of Anaerobic Methane Oxidation. Frontiers in Environmental Science, 2018, 6, .	3.3	1
116	Genomic and proteomic analyses reveal multiple homologs of genes encoding enzymes of the methanol:coenzyme M methyltransferase system that are differentially expressed in methanol- and acetate-grown Methanosarcina thermophila. FEMS Microbiology Letters, 2002, 215, 127-132.	1.8	1
117	MrpA Functions in Energy Conversion during Acetate-Dependent Growth of Methanosarcina acetivorans. Journal of Bacteriology, 2014, 196, 716-716.	2.2	0
118	Carbonic Anhydrases of Environmentally and Medically Relevant Anaerobic Prokaryotes. , 2015, , 325-336.		0