James G Ferry

List of Publications by Year
in descending order

118 papers	9,343 citations	50276 46 h-index	40979 93 g-index
125 all docs	125 docs citations	125 times ranked	8987 citing authors

#	Article	IF	Citations
1	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
2	Methanosarcina acetivorans: A Model for Mechanistic Understanding of Aceticlastic and Reverse Methanogenesis. Frontiers in Microbiology, 2020, 11, 1806.	3.5	39
3	Life on the thermodynamic edge: Respiratory growth of an acetotrophic methanogen. Science Advances, 2019, 5, eaaw9059.	10.3	50
4	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
5	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
6	A biochemical framework for anaerobic oxidation of methane driven by Fe(III)-dependent respiration. Nature Communications, 2018, 9, 1642.	12.8	88
7	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
8	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
9	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
10	The Biochemistry and Physiology of Respiratory-Driven Reversed Methanogenesis. , 2018, , 183-197.		2
11	Computationally Exploring and Alleviating the Kinetic Bottlenecks of Anaerobic Methane Oxidation. Frontiers in Environmental Science, 2018, 6, .	3.3	1
12	Electron Bifurcation and Confurcation in Methanogenesis and Reverse Methanogenesis. Frontiers in Microbiology, 2018, 9, 1322.	3.5	65
13	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
14	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
15	Functional Role of MrpA in the MrpABCDEFG Na ⁺ /H ⁺ Antiporter Complex from the Archaeon Methanosarcina acetivorans. Journal of Bacteriology, 2017, 199, .	2.2	31
16	Reversing methanogenesis to capture methane for liquid biofuel precursors. Microbial Cell Factories, 2016, 15, 11.	4.0	116
17	Assessing methanotrophy and carbon fixation for biofuel production by Methanosarcina acetivorans. Microbial Cell Factories, 2016, 15, 10.	4.0	40
18	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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19	Essential Amino Acid Supplementation by Gut Microbes of a Wood-Feeding Cerambycid. Environmental Entomology, 2016, 45, 66-73.	1.4	55
20	A Ferredoxin Disulfide Reductase Delivers Electrons to the <i>Methanosarcina barkeri</i> Class III Ribonucleotide Reductase. Biochemistry, 2015, 54, 7019-7028.	2.5	18
21	Carbonic Anhydrases of Environmentally and Medically Relevant Anaerobic Prokaryotes. , 2015, , 325-336.		0
22	Structural and Biochemical Characterization of a Ferredoxin:Thioredoxin Reductase-like Enzyme from <i>Methanosarcina acetivorans</i>. Biochemistry, 2015, 54, 3122-3128.	2.5	11
23	Acetate Metabolism in Anaerobes from the Domain Archaea. Life, 2015, 5, 1454-1471.	2.4	30
24	Methane oxidation by anaerobic archaea for conversion to liquid fuels. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 391-401.	3.0	32
25	Characterization of the RnfB and RnfG Subunits of the Rnf Complex from the Archaeon Methanosarcina acetivorans. PLoS ONE, 2014, 9, e97966.	2.5	35
26	Draft Genome Sequence of an Obligately Methylotrophic Methanogen, Methanococcoides methylutens, Isolated from Marine Sediment. Genome Announcements, 2014, 2, .	0.8	9
27	MrpA Functions in Energy Conversion during Acetate-Dependent Growth of Methanosarcina acetivorans. Journal of Bacteriology, 2014, 196, 716-716.	2.2	0
28	Prokaryotic Carbonic Anhydrases of Earthâ€™s Environment. Sub-Cellular Biochemistry, 2014, 75, 77-87.	2.4	18
29	Anion inhibition studies of a Î²-carbonic anhydrase from Clostridium perfringens. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 6706-6710.	2.2	46
30	Carbonic anhydrases of anaerobic microbes. Bioorganic and Medicinal Chemistry, 2013, 21, 1392-1395.	3.0	23
31	Frontiers, Opportunities, and Challenges in Biochemical and Chemical Catalysis of CO₂ Fixation. Chemical Reviews, 2013, 113, 6621-6658.	47.7	1,786
32	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
33	MrpA Functions in Energy Conversion during Acetate-Dependent Growth of Methanosarcina acetivorans. Journal of Bacteriology, 2013, 195, 3987-3994.	2.2	31
34	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
35	MreA Functions in the Global Regulation of Methanogenic Pathways in Methanosarcina acetivorans. MBio, 2012, 3, e00189-12.	4.1	25
36	Acetate Kinase and Phosphotransacetylase. Methods in Enzymology, 2011, 494, 219-231.	1.0	21

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37	Metabolic reconstruction of the archaeon methanogen Methanosarcina Acetivorans. BMC Systems Biology, 2011, 5, 28.	3.0	45
38	Electron transport in acetate-grown Methanosarcina acetivorans. BMC Microbiology, 2011, 11, 165.	3.3	66
39	Fundamentals of methanogenic pathways that are key to the biomethanation of complex biomass. Current Opinion in Biotechnology, 2011, 22, 351-357.	6.6	141
40	How to Make a Living by Exhaling Methane. Annual Review of Microbiology, 2010, 64, 453-473.	7.3	149
41	CO in methanogenesis. Annals of Microbiology, 2010, 60, 1-12.	2.6	27
42	The chemical biology of methanogenesis. Planetary and Space Science, 2010, 58, 1775-1783.	1.7	72
43	The Î³ class of carbonic anhydrases. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 374-381.	2.3	152
44	Functional Analysis of the Three TATA Binding Protein Homologs in <i>Methanosarcina acetivorans</i>. Journal of Bacteriology, 2010, 192, 1511-1517.	2.2	16
45	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
46	An Engineered Methanogenic Pathway Derived from the Domains <i>Bacteria</i> and <i>Archaea</i>. MBio, 2010, 1, .	4.1	31
47	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
48	The Archetype Î³-Class Carbonic Anhydrase (Cam) Contains Iron When Synthesized in Vivo. Biochemistry, 2009, 48, 817-819.	2.5	85
49	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
50	<i>Methanogenesis in Marine Sediments</i>. Annals of the New York Academy of Sciences, 2008, 1125, 147-157.	3.8	71
51	Quantitative Proteomic and Microarray Analysis of the ArchaeonMethanosarcinaacetivoransGrown with Acetate versus Methanol. Journal of Proteome Research, 2007, 6, 759-771.	3.7	93
52	Investigation of the Methanosarcina thermophila Acetate Kinase Mechanism by Fluorescence Quenching. Biochemistry, 2007, 46, 14170-14176.	2.5	23
53	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
54	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

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55	Interaction of ironâ€“sulfur flavoprotein with oxygen and hydrogen peroxide. Biochimica Et Biophysica Acta - General Subjects, 2006, 1760, 858-864.	2.4	19
56	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
57	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
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	The Stepwise Evolution of Early Life Driven by Energy Conservation. Molecular Biology and Evolution, 2006, 23, 1286-1292.	8.9	109
60	Steady-State Kinetic Analysis of Phosphotransacetylase from Methanosarcina thermophila. Journal of Bacteriology, 2006, 188, 1155-1158.	2.2	19
61	Trace methane oxidation studied in several Euryarchaeota under diverse conditions. Archaea, 2005, 1, 303-309.	2.3	89
62	Structures of the Iron-Sulfur Flavoproteins from Methanosarcina thermophila and Archaeoglobus fulgidus. Journal of Bacteriology, 2005, 187, 3848-3854.	2.2	16
63	Characterization of the Acetate Binding Pocket in the Methanosarcina thermophila Acetate Kinase. Journal of Bacteriology, 2005, 187, 2386-2394.	2.2	47
64	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
65	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
66	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
67	Flavin Mononucleotide-Binding Flavoprotein Family in the Domain Archaea. Journal of Bacteriology, 2004, 186, 90-97.	2.2	20
68	Crystal Structure of Phosphotransacetylase from the Methanogenic Archaeon Methanosarcina thermophila. Structure, 2004, 12, 559-567.	3.3	30
69	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
70	Gamma carbonic anhydrases in plant mitochondria. Plant Molecular Biology, 2004, 55, 193-207.	3.9	124
71	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
72	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

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73	A Role for Iron in an Ancient Carbonic Anhydrase. Journal of Biological Chemistry, 2004, 279, 6683-6687.	3.4	133
74	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
75	One-Carbon Metabolism in Methanogenic Anaerobes. , 2003, , 143-156.		12
76	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
77	The Genome of <i>M. acetivorans</i> Reveals Extensive Metabolic and Physiological Diversity. Genome Research, 2002, 12, 532-542.	5.5	573
78	Role of Arginine 59 in the Î³-Class Carbonic Anhydrases. Biochemistry, 2002, 41, 669-678.	2.5	22
79	Chemical Rescue of Proton Transfer in Catalysis by Carbonic Anhydrases in the Î²- and Î³-Classâ€. Biochemistry, 2002, 41, 15429-15435.	2.5	45
80	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
81	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
82	Carbonic Anhydrase: New Insights for an Ancient Enzyme. Journal of Biological Chemistry, 2001, 276, 48615-48618.	3.4	478
83	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
84	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
85	Urkinase: Structure of Acetate Kinase, a Member of the ASKHA Superfamily of Phosphotransferases. Journal of Bacteriology, 2001, 183, 680-686.	2.2	97
86	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
87	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
88	Cysteine biosynthesis in the Archaea:Methanosarcina thermophilautilizesO-acetylserine sulfhydrylase. FEMS Microbiology Letters, 2000, 189, 205-210.	1.8	25
89	Prokaryotic carbonic anhydrases. FEMS Microbiology Reviews, 2000, 24, 335-366.	8.6	566
90	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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91	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
92	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
93	Structural and Kinetic Characterization of an Archaeal Î²-Class Carbonic Anhydrase. Journal of Bacteriology, 2000, 182, 6605-6613.	2.2	51
94	Identification of Essential Arginines in the Acetate Kinase from Methanosarcina thermophila. Biochemistry, 2000, 39, 3671-3677.	2.5	35
95	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
96	Prokaryotic carbonic anhydrases. FEMS Microbiology Reviews, 2000, 24, 335-366.	8.6	14
97	Enzymology of one-carbon metabolism in methanogenic pathways. FEMS Microbiology Reviews, 1999, 23, 13-38.	8.6	258
98	Kinetic and Spectroscopic Characterization of the Gamma-Carbonic Anhydrase from the MethanoarchaeonMethanosarcina thermophilaâ€. Biochemistry, 1999, 38, 13119-13128.	2.5	94
99	Enzymology of one-carbon metabolism in methanogenic pathways. FEMS Microbiology Reviews, 1999, 23, 13-38.	8.6	8
100	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
101	Identification of Essential Glutamates in the Acetate Kinase from Methanosarcina thermophila. Journal of Bacteriology, 1998, 180, 1129-1134.	2.2	34
102	Enzymology of the fermentation of acetate to methane by Methanosarcina thermophila. BioFactors, 1997, 6, 25-35.	5.4	88
103	Crystallization of acetate kinase from <i>Methanosarcina thermophila</i> and prediction of its fold. Protein Science, 1997, 6, 2659-2662.	7.6	23
104	Characterization of an Iron-Sulfur Flavoprotein from Methanosarcina thermophila. Journal of Biological Chemistry, 1996, 271, 24023-24028.	3.4	26
105	A Proteasome from the Methanogenic Archaeon Methanosarcina thermophila. Journal of Biological Chemistry, 1995, 270, 28617-28622.	3.4	77
106	Structural characterization and physiological function of component B from Methanosarcina thermophila. Archives of Microbiology, 1993, 159, 296-300.	2.2	9
107	Biochemistry of Methanogenesis. Critical Reviews in Biochemistry and Molecular Biology, 1992, 27, 473-503.	5.2	139
108	Reductive dechlorination of trichloroethylene by the CO-reduced CO dehydrogenase enzyme complex fromMethanosarcina thermophila. FEMS Microbiology Letters, 1992, 96, 55-59.	1.8	57

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109	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
110	Identification of molybdopterin guanine dinucleotide in formate dehydrogenase fromMethanobacterium formicicum. FEMS Microbiology Letters, 1991, 77, 213-216.	1.8	38
111	Identification of molybdopterin guanine dinucleotide in formate dehydrogenase from Methanobacterium formicicum. FEMS Microbiology Letters, 1991, 77, 213-216.	1.8	10
112	Formate dehydrogenase. FEMS Microbiology Letters, 1990, 87, 377-382.	1.8	5
113	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
114	Growth of acetotrophic, methane-producing bacteria in a pH auxostat. Current Microbiology, 1984, 11, 227-229.	2.2	75
115	<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
116	Mechanism and Inhibition of theÎ²-Class andÎ³-Class Carbonic Anhydrases. , 0, , 285-300.		2
117	Methanogenesis. , 0, , 288-314.		39
118	Acetate-Based Methane Production. , 0, , 153-170.		7