# Rudolf Kurt Thauer

List of Publications by Year
in descending order



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|---|---|---|---|
| 283 papers | 30,265 citations | 86 h-index (4388) | 157 g-index (6471) |
| 290 all docs | 290 docs citations | 290 times ranked | 14291 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Frontiers, Opportunities, and Challenges in Biochemical and Chemical Catalysis of CO<sub>2</sub> Fixation. Chemical Reviews, 2013, 113, 6621-6658. | 47.7 | 1,786 |
| 2 | Methanogenic archaea: ecologically relevant differences in energy conservation. Nature Reviews Microbiology, 2008, 6, 579-591. | 28.6 | 1,674 |
| 3 | Biochemistry of methanogenesis: a tribute to Marjory Stephenson:1998 Marjory Stephenson Prize Lecture. Microbiology (United Kingdom), 1998, 144, 2377-2406. | 1.8 | 987 |
| 4 | Energy conservation via electron bifurcating ferredoxin reduction and proton/Na+ translocating ferredoxin oxidation. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 94-113. | 1.0 | 663 |
| 5 | The Crystal Structure of [Fe]-Hydrogenase Reveals the Geometry of the Active Site. Science, 2008, 321, 572-575. | 12.6 | 565 |
| 6 | Crystal Structure of Methyl-Coenzyme M Reductase: The Key Enzyme of Biological Methane Formation. Science, 1997, 278, 1457-1462. | 12.6 | 547 |
| 7 | The genome of<i>Clostridium kluyveri</i>, a strict anaerobe with unique metabolic features. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2128-2133. | 7.1 | 409 |
| 8 | Coupled Ferredoxin and Crotonyl Coenzyme A (CoA) Reduction with NADH Catalyzed by the Butyryl-CoA Dehydrogenase/Etf Complex from <i>Clostridium kluyveri</i>. Journal of Bacteriology, 2008, 190, 843-850. | 2.2 | 379 |
| 9 | Hydrogenases from Methanogenic Archaea, Nickel, a Novel Cofactor, and H<sub>2</sub> Storage. Annual Review of Biochemistry, 2010, 79, 507-536. | 11.1 | 374 |
| 10 | Growth parameters (K s, ?max, Y s) of Methanobacterium thermoautotrophicum. Archives of Microbiology, 1980, 127, 59-65. | 2.2 | 371 |
| 11 | Different Ks values for hydrogen of methanogenic bacteria and sulfate reducing bacteria: An explanation for the apparent inhibition of methanogenesis by sulfate. Archives of Microbiology, 1982, 131, 278-282. | 2.2 | 371 |
| 12 | Coupling of ferredoxin and heterodisulfide reduction via electron bifurcation in hydrogenotrophic methanogenic archaea. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2981-2986. | 7.1 | 356 |
| 13 | A conspicuous nickel protein in microbial mats that oxidize methane anaerobically. Nature, 2003, 426, 878-881. | 27.8 | 344 |
| 14 | Nickel, cobalt, and molybdenum requirement for growth of Methanobacterium thermoautotrophicum. Archives of Microbiology, 1979, 123, 105-107. | 2.2 | 343 |
| 15 | The key nickel enzyme of methanogenesis catalyses the anaerobic oxidation of methane. Nature, 2010, 465, 606-608. | 27.8 | 326 |
| 16 | Kinetic mechanism for the ability of sulfate reducers to out-compete methanogens for acetate. Archives of Microbiology, 1982, 132, 285-288. | 2.2 | 318 |
| 17 | C1 Transfer Enzymes and Coenzymes Linking Methylotrophic Bacteria and Methanogenic Archaea. , 1998, 281, 99-102. | | 295 |
| 18 | Life under extreme energy limitation: a synthesis of laboratory- and field-based investigations. FEMS Microbiology Reviews, 2015, 39, 688-728. | 8.6 | 288 |

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| 19 | Carbon Monoxide Oxidation by <i>Clostridium thermoaceticum</i> and <i>Clostridium formicoaceticum</i>. Journal of Bacteriology, 1978, 136, 597-606. | 2.2 | 286 |
| 20 | Flavin-Based Electron Bifurcation, Ferredoxin, Flavodoxin, and Anaerobic Respiration With Protons (Ech) or NAD+ (Rnf) as Electron Acceptors: A Historical Review. Frontiers in Microbiology, 2018, 9, 401. | 3.5 | 281 |
| 21 | Flavin-Based Electron Bifurcation, A New Mechanism of Biological Energy Coupling. Chemical Reviews, 2018, 118, 3862-3886. | 47.7 | 280 |
| 22 | A third type of hydrogenase catalyzing H2 activation. Chemical Record, 2007, 7, 37-46. | 5.8 | 258 |
| 23 | Reactions with Molecular Hydrogen in Microorganisms:â€‰ Evidence for a Purely Organic Hydrogenation Catalyst. Chemical Reviews, 1996, 96, 3031-3042. | 47.7 | 257 |
| 24 | An Ancient Pathway Combining Carbon Dioxide Fixation with the Generation and Utilization of a Sodium Ion Gradient for ATP Synthesis. PLoS ONE, 2012, 7, e33439. | 2.5 | 246 |
| 25 | The Genome Sequence of Methanosphaera stadtmanae Reveals Why This Human Intestinal Archaeon Is Restricted to Methanol and H 2 for Methane Formation and ATP Synthesis. Journal of Bacteriology, 2006, 188, 642-658. | 2.2 | 245 |
| 26 | The final step in methane formation. Investigations with highly purified methyl-CoM reductase (component C) from Methanobacterium thermoautotrophicum (strain Marburg). FEBS Journal, 1988, 172, 669-677. | 0.2 | 230 |
| 27 | The crystal structure of C176A mutated [Fe]â€hydrogenase suggests an acylâ€iron ligation in the active site iron complex. FEBS Letters, 2009, 583, 585-590. | 2.8 | 223 |
| 28 | Acetate oxidation to CO2 in anaerobic bacteria via a novel pathway not involving reactions of the citric acid cycle. Archives of Microbiology, 1986, 145, 162-172. | 2.2 | 217 |
| 29 | NADP<sup>+</sup>Reduction with Reduced Ferredoxin and NADP<sup>+</sup>Reduction with NADH Are Coupled via an Electron-Bifurcating Enzyme Complex in<i>Clostridium kluyveri</i>. Journal of Bacteriology, 2010, 192, 5115-5123. | 2.2 | 212 |
| 30 | NADP-Specific Electron-Bifurcating [FeFe]-Hydrogenase in a Functional Complex with Formate Dehydrogenase in Clostridium autoethanogenum Grown on CO. Journal of Bacteriology, 2013, 195, 4373-4386. | 2.2 | 208 |
| 31 | Carbon Monoxide as an Intrinsic Ligand to Iron in the Active Site of the Ironâ^'Sulfur-Cluster-Free Hydrogenase H<sub>2</sub>-Forming Methylenetetrahydromethanopterin Dehydrogenase As Revealed by Infrared Spectroscopy. Journal of the American Chemical Society, 2004, 126, 14239-14248. | 13.7 | 203 |
| 32 | Energy Conservation Associated with Ethanol Formation from H <sub>2</sub> and CO <sub>2</sub> in Clostridium autoethanogenum Involving Electron Bifurcation. Journal of Bacteriology, 2015, 197, 2965-2980. | 2.2 | 198 |
| 33 | UVâ€A/blueâ€light inactivation of the â€˜metalâ€freeâ€™ hydrogenase (Hmd) from methanogenic archaea. FEBS Journal, 2004, 271, 195-204. | 0.2 | 192 |
| 34 | Mode of action uncovered for the specific reduction of methane emissions from ruminants by the small molecule 3-nitrooxypropanol. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6172-6177. | 7.1 | 190 |
| 35 | Isolation and characterization of Desulfovibrio growing on hydrogen plus sulfate as the sole energy source. Archives of Microbiology, 1978, 116, 41-49. | 2.2 | 185 |
| 36 | On the mechanism of biological methane formation: structural evidence for conformational changes in methyl-coenzyme M reductase upon substrate binding. Journal of Molecular Biology, 2001, 309, 315-330. | 4.2 | 183 |

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| 37 | Reductive dehalogenation of chlorinated C1-hydrocarbons mediated by corrinoids. Biochemistry, 1989, 28, 4908-4914. | 2.5 | 182 |
| 38 | Hydrogenase frommethanobacterium thermoautotrophicum, a nickel-containing enzyme. FEBS Letters, 1981, 136, 165-169. | 2.8 | 181 |
| 39 | H2-forming methylenetetrahydromethanopterin dehydrogenase, a novel type of hydrogenase without iron-sulfur clusters in methanogenic archaea. FEBS Journal, 1992, 208, 511-520. | 0.2 | 181 |
| 40 | Coenzyme F430 as a possible catalyst for the reductive dehalogenation of chlorinated C1 hydrocarbons in methanogenic bacteria. Biochemistry, 1989, 28, 10061-10065. | 2.5 | 179 |
| 41 | <i>Methane as Fuel for Anaerobic Microorganisms</i>. Annals of the New York Academy of Sciences, 2008, 1125, 158-170. | 3.8 | 174 |
| 42 | Growth yields and growth rates of Desulfovibrio vulgaris (Marburg) growing on hydrogen plus sulfate and hydrogen plus thiosulfate as the sole energy sources. Archives of Microbiology, 1978, 117, 209-214. | 2.2 | 173 |
| 43 | Novel Formaldehyde-Activating Enzyme inMethylobacterium extorquens AM1 Required for Growth on Methanol. Journal of Bacteriology, 2000, 182, 6645-6650. | 2.2 | 173 |
| 44 | Methyl-coenzyme M reductase and the anaerobic oxidation of methane in methanotrophic Archaea. Current Opinion in Microbiology, 2005, 8, 643-648. | 5.1 | 166 |
| 45 | Acetate assimilation and the synthesis of alanine, aspartate and glutamate inMethanobacterium thermoautotrophicum. Archives of Microbiology, 1978, 117, 61-66. | 2.2 | 164 |
| 46 | Nickel, a component of factor F 430 from Methanobacterium thermoautotrophicum. Archives of Microbiology, 1980, 124, 103-106. | 2.2 | 163 |
| 47 | The Na+-translocating methyltransferase complex from methanogenic archaea. Biochimica Et Biophysica Acta - Bioenergetics, 2001, 1505, 28-36. | 1.0 | 157 |
| 48 | Comparison of three methyl-coenzyme M reductases from phylogenetically distant organisms: unusual amino acid modification, conservation and adaptation. Journal of Molecular Biology, 2000, 303, 329-344. | 4.2 | 156 |
| 49 | MÃ¶ssbauer Studies of the Ironâˆ’Sulfur Cluster-Free Hydrogenase:Â The Electronic State of the Mononuclear Fe Active Site. Journal of the American Chemical Society, 2005, 127, 10430-10435. | 13.7 | 155 |
| 50 | Structure of a methyl-coenzyme M reductase from Black Sea mats that oxidize methane anaerobically. Nature, 2012, 481, 98-101. | 27.8 | 152 |
| 51 | Anaerobic oxidation of methane with sulfate: on the reversibility of the reactions that are catalyzed by enzymes also involved in methanogenesis from CO2. Current Opinion in Microbiology, 2011, 14, 292-299. | 5.1 | 150 |
| 52 | The Internal-Alkaline pH Gradient, Sensitive to Uncoupler and ATPase Inhibitor, in Growing Clostridium pasteurianum. FEBS Journal, 1975, 55, 445-453. | 0.2 | 149 |
| 53 | The Cofactor of the Ironâ€"Sulfur Cluster Free Hydrogenase Hmd: Structure of the Lightâ€Inactivation Product. Angewandte Chemie - International Edition, 2004, 43, 2547-2551. | 13.8 | 145 |
| 54 | Citric-acid cycle, 50 years on. Modifications and an alternative pathway in anaerobic bacteria. FEBS Journal, 1988, 176, 497-508. | 0.2 | 143 |

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| 55 | Electron Bifurcation Involved in the Energy Metabolism of the Acetogenic Bacterium Moorella thermoacetica Growing on Glucose or H <sub>2</sub> plus CO <sub>2</sub>. Journal of Bacteriology, 2012, 194, 3689-3699. | 2.2 | 138 |
| 56 | The Iron-Sulfur Cluster-free Hydrogenase (Hmd) Is a Metalloenzyme with a Novel Iron Binding Motif. Journal of Biological Chemistry, 2006, 281, 30804-30813. | 3.4 | 134 |
| 57 | Purified Methyl-Coenzyme-M Reductase is Activated when the Enzyme-Bound Coenzyme F430 is Reduced to the Nickel(I) Oxidation State by Titanium(III) Citrate. FEBS Journal, 1997, 243, 110-114. | 0.2 | 130 |
| 58 | Vectorial electron transport in Degulfovibrio vulgaris (Marburg) growing on hydrogen plus sulfate as sole energy source. Archives of Microbiology, 1980, 125, 167-174. | 2.2 | 127 |
| 59 | Distribution of Tetrahydromethanopterin-Dependent Enzymes in Methylotrophic Bacteria and Phylogeny of Methenyl Tetrahydromethanopterin Cyclohydrolases. Journal of Bacteriology, 1999, 181, 5750-5757. | 2.2 | 124 |
| 60 | Sodium dependence of methane formation in methanogenic bacteria. FEBS Letters, 1982, 143, 323-326. | 2.8 | 123 |
| 61 | A Reversible Electron-Bifurcating Ferredoxin- and NAD-Dependent [FeFe]-Hydrogenase (HydABC) in Moorella thermoacetica. Journal of Bacteriology, 2013, 195, 1267-1275. | 2.2 | 122 |
| 62 | The Physiological Role of the Ribulose Monophosphate Pathway in Bacteria and Archaea. Bioscience, Biotechnology and Biochemistry, 2006, 70, 10-21. | 1.3 | 121 |
| 63 | A Fifth Pathway of Carbon Fixation. Science, 2007, 318, 1732-1733. | 12.6 | 121 |
| 64 | Properties and Function of the Pyruvate-Formate-Lyase Reaction in Clostridiae. FEBS Journal, 1972, 27, 282-290. | 0.2 | 116 |
| 65 | Evidence for a Hexaheteromeric Methylenetetrahydrofolate Reductase in Moorella thermoacetica. Journal of Bacteriology, 2014, 196, 3303-3314. | 2.2 | 115 |
| 66 | Hydrogen Formation and Its Regulation in Ruminococcus albus: Involvement of an Electron-Bifurcating [FeFe]-Hydrogenase, of a Non-Electron-Bifurcating [FeFe]-Hydrogenase, and of a Putative Hydrogen-Sensing [FeFe]-Hydrogenase. Journal of Bacteriology, 2014, 196, 3840-3852. | 2.2 | 111 |
| 67 | Biosynthetic evidence for a nickel tetrapyrrole structure of factor F430 from Methanobacterium thermoautotrophicum. FEBS Letters, 1980, 119, 118-120. | 2.8 | 110 |
| 68 | The Crystal Structure of the Apoenzyme of the Ironâ€“Sulphur Cluster-free Hydrogenase. Journal of Molecular Biology, 2006, 358, 798-809. | 4.2 | 108 |
| 69 | Anaerobic acetate oxidation to CO2 by Desulfobacter postgatei. Archives of Microbiology, 1983, 136, 222-229. | 2.2 | 107 |
| 70 | More Than 200 Genes Required for Methane Formation from H<sub>2</sub>and CO<sub>2</sub>and Energy Conservation Are Present in<i>Methanothermobacter marburgensis</i>and<i>Methanothermobacter thermautotrophicus</i>. Archaea, 2011, 2011, 1-23. | 2.3 | 107 |
| 71 | Two genetically distinct methyl-coenzyme M reductases in Methanobacterium thermoautotrophicum strain Marburg and DeltaH. FEBS Journal, 1990, 194, 871-877. | 0.2 | 105 |
| 72 | Activities of formylmethanofuran dehydrogenase, methylenetetrahydromethanopterin dehydrogenase, methylenetetrahydromethanopterin reductase, and heterodisulfide reductase in methanogenic bacteria. Archives of Microbiology, 1991, 155, 459-465. | 2.2 | 104 |

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| 73 | Purification and properties of heterodisulfide reductase from Methanobacterium thermoautotrophicum (strain Marburg). FEBS Journal, 1990, 193, 255-261. | 0.2 | 103 |
| 74 | Nickel requirement for carbon monoxide dehydrogenase formation in Clostridium pasteurianum. Archives of Microbiology, 1979, 122, 117-120. | 2.2 | 102 |
| 75 | Methanol: Coenzyme M Methyltransferase from Methanosarcina Barkeri. Purification, Properties and Encoding Genes of the Corrinoid Protein MT1. FEBS Journal, 1997, 243, 670-677. | 0.2 | 102 |
| 76 | Insights into Flavin-based Electron Bifurcation via the NADH-dependent Reduced Ferredoxin:NADP Oxidoreductase Structure. Journal of Biological Chemistry, 2015, 290, 21985-21995. | 3.4 | 102 |
| 77 | Zur Kenntnis des Faktors F430 aus methanogenen Bakterien: Struktur des proteinfreien Faktors. Helvetica Chimica Acta, 1984, 67, 334-351. | 1.6 | 100 |
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| 79 | The Wolfe cycle comes full circle. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15084-15085. | 7.1 | 100 |
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| 81 | An <i>Escherichia coli</i> hydrogenaseâ€3â€type hydrogenase in methanogenic archaea. FEBS Journal, 1998, 252, 467-476. | 0.2 | 98 |
| 82 | Characterization of the Fe Site in Ironâˆ'Sulfur Cluster-Free Hydrogenase (Hmd) and of a Model Compound via Nuclear Resonance Vibrational Spectroscopy (NRVS). Inorganic Chemistry, 2008, 47, 3969-3977. | 4.0 | 97 |
| 83 | Growth the Wolinella succinogenes on H2S plus fumarate and on formate plus sulfur as energy sources. Archives of Microbiology, 1986, 144, 147-150. | 2.2 | 95 |
| 84 | Carbon assimilation pathways in sulfate reducing bacteria. Formate, carbon dioxide, carbon monoxide, and acetate assimilation by Desulfovibrio baarsii. Archives of Microbiology, 1984, 138, 257-262. | 2.2 | 94 |
| 85 | Carbonic anhydrase activity in acetate grown Methanosarcina barkeri. Archives of Microbiology, 1989, 151, 137-142. | 2.2 | 93 |
| 86 | Methyl (Alkyl)-Coenzyme M Reductases: Nickel F-430-Containing Enzymes Involved in Anaerobic Methane Formation and in Anaerobic Oxidation of Methane or of Short Chain Alkanes. Biochemistry, 2019, 58, 5198-5220. | 2.5 | 93 |
| 87 | The NADP-Dependent Methylene Tetrahydromethanopterin Dehydrogenase in <i>Methylobacterium extorquens</i> AM1. Journal of Bacteriology, 1998, 180, 5351-5356. | 2.2 | 90 |
| 88 | Purification and Properties of Reduced Ferredoxin: CO2 Oxidoreductase from Clostridium pasteurianum, a Molybdenum Iron-Sulfur-Protein. FEBS Journal, 1978, 85, 125-135. | 0.2 | 89 |
| 89 | The metal-free hydrogenase from methanogenic archaea: evidence for a bound cofactor. FEBS Letters, 2000, 485, 200-204. | 2.8 | 89 |
| 90 | Biological role of nickel. Trends in Biochemical Sciences, 1980, 5, 304-306. | 7.5 | 88 |

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| 92 | A rapid procedure for the purification of ferredoxin from clostridia using polyethyleneimine. FEBS Letters, 1978, 89, 219-222. | 2.8 | 87 |
| 93 | Catalysis of an isotopic exchange between CO2 and the carboxyl group of acetate by Methanosarcina barkeri grown on acetate. Archives of Microbiology, 1984, 138, 365-370. | 2.2 | 86 |
| 94 | The Reaction of the Iron-Sulfur Protein Hydrogenase with Carbon Monoxide. FEBS Journal, 1974, 42, 447-452. | 0.2 | 85 |
| 95 | Acetate thiokinase and the assimilation of acetate in Methanobacterium thermoautotrophicum. Archives of Microbiology, 1980, 128, 248-252. | 2.2 | 85 |
| 96 | Coupling of carbon monoxide oxidation to CO2 and H2 with the phosphorylation of ADP in acetate-grown Methanosarcina barkeri. FEBS Journal, 1986, 159, 393-398. | 0.2 | 85 |
| 97 | Anaerobic acetate oxidation to CO2 by Desulfotomaculum acetoxidans. Archives of Microbiology, 1988, 150, 374-380. | 2.2 | 85 |
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| 99 | The exchange activities of [Fe]Âhydrogenase (ironâ€“sulfur-cluster-free hydrogenase) from methanogenic archaea in comparison with the exchange activities of [FeFe] and [NiFe]Âhydrogenases. Journal of Biological Inorganic Chemistry, 2008, 13, 97-106. | 2.6 | 84 |
| 100 | Zur Kenntnis des Faktors F430 aus methanogenen Bakterien: Ãœber die Natur der Isolierungsartefakte von F430, ein Beitrag zur Chemie von F430 und zur konformationellen Stereochemie der Ligandperipherie von hydroporphinoiden Nickel(II)-Komplexen. Helvetica Chimica Acta, 1985, 68, 1338-1358. | 1.6 | 83 |
| 101 | Enzymes and coenzymes of the carbon monoxide dehydrogenase pathway for autotrophic CO2 fixation in Archaeoglobus lithotrophicus and the lack of carbon monoxide dehydrogenase in the heterotrophic A. profundus. Archives of Microbiology, 1995, 163, 112-118. | 2.2 | 83 |
| 102 | Insight into the mechanism of biological methanol activation based on the crystal structure of the methanol-cobalamin methyltransferase complex. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 18917-18922. | 7.1 | 81 |
| 103 | Salt dependence, kinetic properties and catalytic mechanism of N-formylmethanofuran:tetrahydromethanopterin formyltransferase from the extreme thermophile Methanopyrus kandleri. FEBS Journal, 1992, 210, 971-981. | 0.2 | 80 |
| 104 | A methenyl tetrahydromethanopterin cyclohydrolase and a methenyl tetrahydrofolate cyclohydrolase in Methylobacterium extorquens AM1. FEBS Journal, 1999, 261, 475-480. | 0.2 | 80 |
| 105 | Purification and properties of N5-methyltetrahydromethanopterin: coenzyme M methyltransferase from Methanobacterium thermoautotrophicum. FEBS Journal, 1993, 213, 537-545. | 0.2 | 79 |
| 106 | Methanol: Coenzyme M Methyltransferase from Methanosarcina Barkeri. Zinc Dependence and Thermodynamics of the Methanol:Cob(I)alamin Methyltransferase Reaction. FEBS Journal, 1997, 249, 280-285. | 0.2 | 79 |
| 107 | On the Mechanism of Catalysis by a Metal-Free Hydrogenase from Methanogenic Archaea: Enzymatic Transformation of H2 without a Metal and Its Analogy to the Chemistry of Alkanes in Superacidic Solution. Angewandte Chemie International Edition in English, 1995, 34, 2247-2250. | 4.4 | 78 |
| 108 | Sodium dependence of growth and methane formation in Methanobacterium thermoautotrophicum. Archives of Microbiology, 1981, 130, 319-321. | 2.2 | 77 |

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| 109 | The Biosynthesis of Methylated Amino Acids in the Active Site Region of Methyl-coenzyme M Reductase. Journal of Biological Chemistry, 2000, 275, 3755-3760. | 3.4 | 77 |
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| 112 | Properties of the two isoenzymes of methyl-coenzyme M reductase in Methanobacterium thermoautotrophicum. FEBS Journal, 1993, 217, 587-595. | 0.2 | 76 |
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| 114 | The Tungsten Formylmethanofuran Dehydrogenase from Methanobacterium Thermoautotrophicum Contains Sequence Motifs Characteristic for Enzymes Containing Molybdopterin Dinucleotide. FEBS Journal, 1995, 234, 910-920. | 0.2 | 76 |
| 115 | Heterodisulfide Reductase from Methanol-Grown Cells of Methanosarcina Barkeri is not a Flavoenzyme. FEBS Journal, 1997, 244, 226-234. | 0.2 | 76 |
| 116 | Lactate conversion to acetate, CO2 and H2 in cell suspensions of Desulfovibrio vulgaris (Marburg): indications for the involvement of an energy driven reaction. Archives of Microbiology, 1988, 150, 26-31. | 2.2 | 75 |
| 117 | A molybdenum and a tungsten isoenzyme of formylmethanofuran dehydrogenase in the thermophilic archaeon Methanobacterium wolfei. FEBS Journal, 1992, 209, 1013-1018. | 0.2 | 75 |
| 118 | Mechanism of acetate oxidation to CO2 with elemental sulfur in Desulfuromonas acetoxidans. Archives of Microbiology, 1985, 141, 392-398. | 2.2 | 74 |
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| 120 | Methyl-coenzyme-M reductase from Methanobacterium thermoautotrophicum (strain Marburg). Purity, activity and novel inhibitors. FEBS Journal, 1989, 184, 63-68. | 0.2 | 74 |
| 121 | Structure of an F430 Variant from Archaea Associated with Anaerobic Oxidation of Methane. Journal of the American Chemical Society, 2008, 130, 10758-10767. | 13.7 | 74 |
| 122 | Differential expression of the two methyl-coenzyme M reductases in Methanobacterium thermoautotrophicum as determined immunochemically via isoenzyme-specific antisera. FEBS Journal, 1992, 206, 87-92. | 0.2 | 73 |
| 123 | Pathways of autotrophic CO 2 fixation and of dissimilatory nitrate reduction to N 2 O in Ferroglobus placidus. Archives of Microbiology, 1997, 167, 19-23. | 2.2 | 73 |
| 124 | Methylcobalamin:Coenzyme M Methyltransferase Isoenzymes MtaA and MtbA from Methanosarcina barkeri. Cloning, Sequencing and Differential Transcription of the Encoding Genes, and Functional Overexpression of the mtaA Gene in Escherichia coli. FEBS Journal, 1996, 235, 653-659. | 0.2 | 72 |
| 125 | H2-Forming N5,N10-Methylenetetrahydromethanopterin Dehydrogenase from Methanobacterium thermoautotrophicum Catalyzes a Stereoselective Hydride Transfer As Determined by Two-Dimensional NMR Spectroscopy. Biochemistry, 1994, 33, 3986-3993. | 2.5 | 71 |
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| 128 | Proton translocation coupled to the oxidation of carbon monoxide to CO<sub>2</sub> and H<sub>2</sub> in <i>Methanosarcina barkeri</i>. FEBS Journal, 1989, 179, 469-472. | 0.2 | 68 |
| 129 | A seleniumâ€dependent and a seleniumâ€independent formylmethanofuran dehydrogenase and their transcriptional regulation in the hyperthermophilic Methanopyrus kandleri. Molecular Microbiology, 1997, 23, 1033-1042. | 2.5 | 68 |
| 130 | Characterization of a second methylene tetrahydromethanopterin dehydrogenase from Methylobacterium extorquens AM1. FEBS Journal, 2000, 267, 3762-3769. | 0.2 | 68 |
| 131 | Methane and microbes. Nature, 2006, 440, 878-879. | 27.8 | 68 |
| 132 | A Nickel Hydride Complex in the Active Site of Methyl-Coenzyme M Reductase: Implications for the Catalytic Cycle. Journal of the American Chemical Society, 2008, 130, 10907-10920. | 13.7 | 68 |
| 133 | Carbon-Monoxide Oxidation in Cell-Free Extracts of Clostridium pasteurianum. FEBS Journal, 1974, 45, 343-349. | 0.2 | 67 |
| 134 | Acetate and carbon dioxide assimilation by Desulfovibrio vulgaris (Marburg), growing on hydrogen and sulfate as sole energy source. Archives of Microbiology, 1979, 123, 301-305. | 2.2 | 67 |
| 135 | Anaerobic lactate oxidation to 3 CO2 by Archaeoglobus fulgidus via the carbon monoxide dehydrogenase pathway: demonstration of the acetyl-CoA carbon-carbon cleavage reaction in cell extracts. Archives of Microbiology, 1990, 153, 215-218. | 2.2 | 67 |
| 136 | Structures and Functions of Four Anabolic 2-Oxoacid Oxidoreductases in Methanobacterium Thermoautotrophicum. FEBS Journal, 1997, 244, 862-868. | 0.2 | 67 |
| 137 | The Energy Conserving N5-Methyltetrahydromethanopterin:Coenzyme M Methyltransferase Complex from Methanobacterium thermoautotrophicum is Composed of Eight Different Subunits. FEBS Journal, 1995, 228, 640-648. | 0.2 | 66 |
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| 139 | Purification of a two-subunit cytochrome-b-containing heterodisulfide reductase from methanol-grown Methanosarcina barkeri. FEBS Journal, 1994, 221, 855-861. | 0.2 | 65 |
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