

David F Wilson

List of Publications by Year in descending order

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265
papers

10,988
citations

22146

59
h-index

39667

94
g-index

267
all docs

267
docs citations

267
times ranked

5142
citing authors

#	ARTICLE	IF	CITATIONS
1	Regulation of cellular energy metabolism. <i>Journal of Membrane Biology</i> , 1982, 70, 1-14.	2.1	401
2	The oxygen dependence of cellular energy metabolism. <i>Archives of Biochemistry and Biophysics</i> , 1979, 195, 485-493.	3.0	351
3	Oxyphor R2 and G2: phosphors for measuring oxygen by oxygen-dependent quenching of phosphorescence. <i>Analytical Biochemistry</i> , 2002, 310, 191-198.	2.4	269
4	Redox potentiometry in mitochondrial and photosynthetic bionergetics. <i>Biochimica Et Biophysica Acta - Reviews on Bioenergetics</i> , 1974, 346, 165-212.	0.2	240
5	Calibration of Oxygen-Dependent Quenching of the Phosphorescence of Pd-meso-tetra (4-Carboxyphenyl) Porphine: A Phosphor with General Application for Measuring Oxygen Concentration in Biological Systems. <i>Analytical Biochemistry</i> , 1996, 236, 153-160.	2.4	228
6	Energy dependent changes in the oxidation-reduction potential of cytochrome b. <i>Biochemical and Biophysical Research Communications</i> , 1970, 39, 59-64.	2.1	223
7	Equilibrium relations between the oxidation-reduction reactions and the adenosine triphosphate synthesis in suspensions of isolated liver cells. <i>Biochemical Journal</i> , 1974, 140, 57-64.	3.7	215
8	Two New "Protected" Oxyphors for Biological Oximetry: Properties and Application in Tumor Imaging. <i>Analytical Chemistry</i> , 2011, 83, 8756-8765.	6.5	201
9	Dendritic Phosphorescent Probes for Oxygen Imaging in Biological Systems. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 1292-1304.	8.0	194
10	The Central Role of Glucokinase in Glucose Homeostasis: A Perspective 50 Years After Demonstrating the Presence of the Enzyme in Islets of Langerhans. <i>Frontiers in Physiology</i> , 2019, 10, 148.	2.8	179
11	Heme-heme interaction in cytochrome oxidase. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1972, 256, 277-286.	1.0	177
12	Oxidative phosphorylation: regulation and role in cellular and tissue metabolism. <i>Journal of Physiology</i> , 2017, 595, 7023-7038.	2.9	175
13	Quantitative dependence of mitochondrial oxidative phosphorylation on oxygen concentration: A mathematical model. <i>Archives of Biochemistry and Biophysics</i> , 1979, 195, 494-504.	3.0	167
14	The Pervasive Presence of Fluctuating Oxygenation in Tumors. <i>Cancer Research</i> , 2008, 68, 5812-5819.	0.9	163
15	The oxidation-reduction potentials of cytochromes a and a ₃ in intact rat liver mitochondria. <i>Archives of Biochemistry and Biophysics</i> , 1970, 136, 583-585.	3.0	160
16	Control of mitochondrial respiration: A quantitative evaluation of the roles of cytochrome c and oxygen. <i>Archives of Biochemistry and Biophysics</i> , 1977, 182, 749-762.	3.0	157
17	Neurotransmitter amino acids in the CNS. I. Regional changes in amino acid levels in rat brain during ischemia and reperfusion. <i>Brain Research</i> , 1984, 304, 9-22.	2.2	140
18	Thermodynamic relationships between the oxidation-reduction reactions and the ATP synthesis in suspensions of isolated pigeon heart mitochondria. <i>Archives of Biochemistry and Biophysics</i> , 1974, 160, 412-421.	3.0	129

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19	Regulation of cellular metabolism by intracellular phosphate. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1977, 462, 20-35.	1.0	127
20	Control of respiration in isolated mitochondria: Quantitative evaluation of the dependence of respiratory rates on [ATP], [ADP], and [Pi]. <i>Archives of Biochemistry and Biophysics</i> , 1977, 181, 164-171.	3.0	126
21	Dendritic Polyglutamic Porphyrins: Probing Porphyrin Protection by Oxygen-Dependent Quenching of Phosphorescence. <i>Chemistry - A European Journal</i> , 1999, 5, 1338-1347.	3.3	124
22	The primary oxygen sensor of the cat carotid body is cytochrome c of the mitochondrial respiratory chain. <i>FEBS Letters</i> , 1994, 351, 370-374.	2.8	115
23	Metallo-tetrabenzoporphyrins. New phosphorescent probes for oxygen measurements. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1995, , 103.	0.9	113
24	Frequency domain instrument for measuring phosphorescence lifetime distributions in heterogeneous samples. <i>Review of Scientific Instruments</i> , 2001, 72, 3396-3406.	1.3	111
25	Thermodynamic relations between the mitochondrial oxidation-reduction reactions and cellular ATP levels in ascites tumor cells and perfused rat liver. <i>Biochemistry</i> , 1974, 13, 5305-5311.	2.5	110
26	Oxygen pressures in the interstitial space and their relationship to those in the blood plasma in resting skeletal muscle. <i>Journal of Applied Physiology</i> , 2006, 101, 1648-1656.	2.5	106
27	Heme-heme interaction in cytochrome c oxidase in situ as measured by EPR spectroscopy. <i>Archives of Biochemistry and Biophysics</i> , 1972, 150, 154-163.	3.0	102
28	Control of respiration by the mitochondrial phosphorylation state. <i>Archives of Biochemistry and Biophysics</i> , 1974, 161, 581-591.	3.0	102
29	Oxygen distribution in the retinal and choroidal vessels of the cat as measured by a new phosphorescence imaging method. <i>Applied Optics</i> , 1992, 31, 3711.	2.1	102
30	Studies on Cytochrome c Peroxidase. <i>Journal of Biological Chemistry</i> , 1966, 241, 5347-5352.	3.4	94
31	Mechanism of action of uncouplers of oxidative phosphorylation. <i>Biochemistry</i> , 1971, 10, 2897-2902.	2.5	92
32	The spectral properties of the b cytochromes in intact mitochondria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1971, 253, 88-97.	1.0	90
33	Oxygen distribution in murine tumors: characterization using oxygen-dependent quenching of phosphorescence. <i>Journal of Applied Physiology</i> , 2005, 98, 1503-1510.	2.5	90
34	Neurotransmitter Metabolism in Rat Brain Synaptosomes: Effect of Anoxia and pH. <i>Journal of Neurochemistry</i> , 1982, 38, 1657-1667.	3.9	88
35	Heme-heme interaction in cytochrome c oxidase: The cooperativity of the hemes of cytochrome c oxidase as evidenced in the reaction with CO. <i>Archives of Biochemistry and Biophysics</i> , 1974, 160, 476-486.	3.0	86
36	Phosphorescent Pd Porphyrin Dendrimers: Tuning Core Accessibility by Varying the Hydrophobicity of the Dendritic Matrix. <i>Macromolecules</i> , 2002, 35, 1991-1993.	4.8	85

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37	Cytochrome c oxidase: A synopsis. Archives of Biochemistry and Biophysics, 1978, 188, 1-14.	3.0	83
38	Relationship of transmembrane pH and electrical gradients with respiration and adenosine 5'-triphosphate synthesis in mitochondria. Biochemistry, 1980, 19, 4213-4221.	2.5	81
39	Glucokinase activation repairs defective bioenergetics of islets of Langerhans isolated from type 2 diabetics. American Journal of Physiology - Endocrinology and Metabolism, 2012, 302, E87-E102.	3.5	81
40	Monitoring of the Oxygen Pressure in the Blood of Live Animals Using the Oxygen Dependent Quenching of Phosphorescence. Advances in Experimental Medicine and Biology, 1992, 316, 179-185.	1.6	80
41	Studies on iron-sulfur proteins in the site I region of the respiratory chain in pigeon heart mitochondria and submitochondrial particles. Biochemical and Biophysical Research Communications, 1972, 46, 1631-1638.	2.1	79
42	Effects of Kainic Acid in Rat Brain Synaptosomes: The Involvement of Calcium. Journal of Neurochemistry, 1984, 43, 747-754.	3.9	78
43	Effects of uncouplers of oxidative phosphorylation on the specific conductance of bimolecular lipid membranes. Archives of Biochemistry and Biophysics, 1970, 141, 141-146.	3.0	77
44	The properties of the mitochondrial succinate-cytochrome c reductase. Archives of Biochemistry and Biophysics, 1972, 151, 112-121.	3.0	77
45	Metoprolol Reduces Cerebral Tissue Oxygen Tension after Acute Hemodilution in Rats. Anesthesiology, 2009, 111, 988-1000.	2.5	76
46	Regulation of cellular energy metabolism. The Crabtree effect. Biochimica Et Biophysica Acta - Bioenergetics, 1980, 591, 209-223.	1.0	74
47	Measurement of Muscle Microvascular Oxygen Pressures: Compartmentalization of Phosphorescent Probe. Microcirculation, 2004, 11, 317-326.	1.8	73
48	Some properties of the redox components of cytochrome c oxidase and their interactions. Archives of Biochemistry and Biophysics, 1976, 175, 160-172.	3.0	72
49	A New Method for Measuring Oxygen Concentration in Biological Systems. Advances in Experimental Medicine and Biology, 1986, 200, 189-193.	1.6	72
50	Mitochondrial electron transport and energy conservation. Accounts of Chemical Research, 1972, 5, 234-241.	15.6	66
51	Energy Metabolism in Rat Brain Synaptosomes from Nembutal-Anesthetized and Nonanesthetized Animals. Journal of Neurochemistry, 1980, 34, 1380-1386.	3.9	65
52	A Role for Transglutaminase in Neurotransmitter Release by Rat Brain Synaptosomes. Journal of Neurochemistry, 1986, 46, 499-508.	3.9	65
53	Lipid Hydroperoxides Inhibit Recylation of Phospholipids in Neuronal Membranes. Journal of Neurochemistry, 1989, 52, 255-260.	3.9	65
54	Priming of hypoxia-inducible factor by neuronal nitric oxide synthase is essential for adaptive responses to severe anemia. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17544-17549.	7.1	65

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55	Cytochrome c interactions with membranes. Archives of Biochemistry and Biophysics, 1975, 171, 108-116.	3.0	64
56	Neurotransmitter amino acids in the CNS. II. Some changes in amino acid levels in rat brain synaptosomes during and after in vitro anoxia and simulated ischemia. Brain Research, 1984, 304, 23-35.	2.2	64
57	Tomographic imaging of oxygen by phosphorescence lifetime. Applied Optics, 2006, 45, 8547.	2.1	64
58	Mitochondrial transmembrane pH and electrical gradients: evaluation of their energy relationships with respiratory rate and ATP synthesis. Biochemistry, 1982, 21, 1438-1444.	2.5	63
59	Effects of Graded Levels of Tissue Oxygen Pressure on Dopamine Metabolism in the Striatum of Newborn Piglets. Journal of Neurochemistry, 1993, 60, 161-166.	3.9	61
60	Ammonia-Induced Release of Neurotransmitters from Rat Brain Synaptosomes: Differences Between the Effects on Amines and Amino Acids. Journal of Neurochemistry, 1987, 49, 1258-1265.	3.9	59
61	The oxidation-reduction potentials of the iron-sulfur proteins in mitochondria. Biochemical and Biophysical Research Communications, 1970, 41, 1273-1278.	2.1	57
62	Interaction of uncouplers with the mitochondrial membrane: Identification of the high affinity binding site. Archives of Biochemistry and Biophysics, 1978, 191, 647-656.	3.0	57
63	A New, Water Soluble, Phosphor for Oxygen Measurements in Vivo. Advances in Experimental Medicine and Biology, 1997, 428, 651-656.	1.6	57
64	Ethanol metabolism: The good, the bad, and the ugly. Medical Hypotheses, 2020, 140, 109638.	1.5	57
65	Energy conservation in detergent-treated mitochondria and purified succinate-cytochrome c reductase. Biochemical and Biophysical Research Communications, 1971, 44, 759-766.	2.1	56
66	Orientation of the hemes of cytochrome c oxidase and cytochrome c in mitochondria. FEBS Letters, 1977, 76, 235-239.	2.8	56
67	Apparent adenosine triphosphate induced ligand change in cytochrome a3 of pigeon heart mitochondria. Biochemistry, 1972, 11, 4613-4621.	2.5	55
68	Homeostatic regulation of cellular energy metabolism. Trends in Biochemical Sciences, 1978, 3, 219-223.	7.5	53
69	Control of mitochondrial respiration by the phosphate potential. Biochemical and Biophysical Research Communications, 1973, 53, 326-333.	2.1	52
70	Electrostatic Core Shielding in Dendritic Polyglutamic Porphyrins. Chemistry - A European Journal, 2000, 6, 2456-2461.	3.3	50
71	Quantifying the role of oxygen pressure in tissue function. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 294, H11-H13.	3.2	50
72	The chemical properties of cytochrome c oxidase in intact mitochondria. Archives of Biochemistry and Biophysics, 1972, 151, 180-187.	3.0	49

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73	The energy dependence of the chemical properties of cytochrome c oxidase. Archives of Biochemistry and Biophysics, 1972, 151, 188-193.	3.0	49
74	The oxidation-reduction potentials of the hemes and copper of cytochrome oxidase from beef heart. Archives of Biochemistry and Biophysics, 1971, 145, 149-154.	3.0	48
75	Inhibitors of cytochrome c oxidase. , 1980, 8, 1-20.		48
76	Oxygen dependence of cellular metabolism: The effect of O ₂ tension on gluconeogenesis and urea synthesis in isolated rat hepatocytes. Journal of Cellular Physiology, 1984, 120, 13-18.	4.1	48
77	Relationship of extracellular dopamine in striatum of newborn piglets to cortical oxygen pressure. Neurochemical Research, 1994, 19, 649-655.	3.3	48
78	Comparison of Postasphyxial Resuscitation with 100% and 21% Oxygen on Cortical Oxygen Pressure and Striatal Dopamine Metabolism in Newborn Piglets. Journal of Neurochemistry, 1995, 64, 292-298.	3.9	48
79	Oxygen, pH, and mitochondrial oxidative phosphorylation. Journal of Applied Physiology, 2012, 113, 1838-1845.	2.5	48
80	Recursive Maximum Entropy Algorithm and its Application to the Luminescence Lifetime Distribution Recovery. Applied Spectroscopy, 2000, 54, 849-855.	2.2	46
81	Oxygen distribution and vascular injury in the mouse eye measured by phosphorescence-lifetime imaging. Applied Optics, 2005, 44, 5239.	2.1	46
82	Two b cytochromes of pigeon heart mitochondria. FEBS Letters, 1971, 15, 209-212.	2.8	44
83	The role of glial cells in regulation of neurotransmitter amino acids in the external environment. II. Mechanism of aspartate transport. Brain Research, 1986, 369, 203-214.	2.2	44
84	Effect of Oxygen Concentration on Cellular Metabolism. Chest, 1985, 88, 229S-232S.	0.8	43
85	Phosphorimeters for analysis of decay profiles and real time monitoring of exponential decay and oxygen concentrations. Analytical Biochemistry, 1988, 174, 73-79.	2.4	42
86	Energy dependent changes in the cytochromes of the mitochondrial respiratory chain. Archives of Biochemistry and Biophysics, 1973, 158, 200-212.	3.0	41
87	Interaction of uncouplers with the mitochondrial membrane: A high-affinity binding site. Archives of Biochemistry and Biophysics, 1977, 184, 578-585.	3.0	40
88	The Effect of Acute Hypoxia on Synaptosomes from Rat Brain. Journal of Neurochemistry, 1980, 34, 1160-1165.	3.9	40
89	A method for measuring oxygen distributions in tissue using frequency domain phosphorometry. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2002, 132, 147-152.	1.8	39
90	Energy-dependent effects on the oxidation-reduction midpoint potentials of the b and c cytochromes in phosphorylating submitochondrial particles from pigeon heart. Biochemistry, 1972, 11, 1937-1943.	2.5	38

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91	Effects of In Vitro Hypoxia and Lowered pH on Potassium Fluxes and Energy Metabolism in Rat Brain Synaptosomes. <i>Journal of Neurochemistry</i> , 1981, 36, 116-123.	3.9	38
92	Thermodynamic relationships among cytochrome bK, cytochrome bT, and ubiquinone in mitochondria. <i>Archives of Biochemistry and Biophysics</i> , 1975, 167, 116-128.	3.0	37
93	Transport of Cysteate by Synaptosomes Isolated from Rat Brain: Evidence that It Utilizes the Same Transporter as Aspartate, Glutamate, and Cysteine Sulfinat. <i>Journal of Neurochemistry</i> , 1986, 47, 1091-1097.	3.9	37
94	Evaluation of phototoxicity of dendritic porphyrin-based phosphorescent oxygen probes: an in vitro study. <i>Photochemical and Photobiological Sciences</i> , 2011, 10, 1056-1065.	2.9	37
95	Tissue oxygen tension during regional low-flow perfusion in neonates. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2003, 125, 472-480.	0.8	36
96	Reaction of CO with cytochrome c oxidase. Titration of the reaction site with chemical oxidant and reductant. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1977, 461, 218-230.	1.0	34
97	Mitochondrial cytochrome b-c1 complex: Its oxidation-reduction components and their stoichiometry. <i>Archives of Biochemistry and Biophysics</i> , 1976, 177, 133-143.	3.0	33
98	A specific uncoupler-binding protein in <i>Tetrahymena pyriformis</i> and <i>Paracoccus denitrificans</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1980, 593, 224-229.	1.0	33
99	An aryl azide suitable for photoaffinity labeling of amine groups in proteins. <i>Archives of Biochemistry and Biophysics</i> , 1975, 171, 104-107.	3.0	32
100	Measurements of the Effective Diffusion Coefficient of Oxygen in Pancreatic Islets. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 6157-6163.	3.7	32
101	Regulation of cellular metabolism: programming and maintaining metabolic homeostasis. <i>Journal of Applied Physiology</i> , 2013, 115, 1583-1588.	2.5	32
102	Mitochondrial cytochrome c oxidase: mechanism of action and role in regulating oxidative phosphorylation. <i>Journal of Applied Physiology</i> , 2014, 117, 1431-1439.	2.5	30
103	Binding of the intramitochondrial ADP and its relationship to adenine nucleotide translocation. <i>FEBS Letters</i> , 1982, 143, 228-232.	2.8	29
104	Relationships of Dopamine, Cortical Oxygen Pressure, and Hydroxyl Radicals in Brain of Newborn Piglets During Hypoxia and Posthypoxic Recovery. <i>Journal of Neurochemistry</i> , 2002, 65, 1205-1212.	3.9	29
105	Immediate and Long-Term Responses of the Carotid Body to High Altitude. <i>High Altitude Medicine and Biology</i> , 2005, 6, 97-111.	0.9	29
106	The low-temperature spectral properties of mammalian cytochrome oxidase. I. The enzyme in intact rat-liver mitochondria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1967, 143, 52-61.	1.0	28
107	Regulation of respiration in <i>Paracoccus denitrificans</i> : The dependence on redox state of cytochrome c and [ATP]/[ADP][Pi]. <i>Archives of Biochemistry and Biophysics</i> , 1979, 197, 463-469.	3.0	28
108	High affinity proline uptake in rat brain synaptosomes. <i>FEBS Letters</i> , 1983, 161, 301-305.	2.8	28

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109	Metoprolol impairs resistance artery function in mice. <i>Journal of Applied Physiology</i> , 2011, 111, 1125-1133.	2.5	28
110	Quantitative assessment of brain microvascular and tissue oxygenation during cardiac arrest and resuscitation in pigs. <i>Anaesthesia</i> , 2013, 68, 723-735.	3.8	28
111	Treatment with a Highly Selective $\hat{2}1$ Antagonist Causes Dose-Dependent Impairment of Cerebral Perfusion After Hemodilution in Rats. <i>Anesthesia and Analgesia</i> , 2013, 116, 649-662.	2.2	28
112	Programming and regulation of metabolic homeostasis. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2015, 308, E506-E517.	3.5	28
113	An energy-dependent transformation of a ferricytochrome of the mitochondrial respiratory chain. <i>FEBS Letters</i> , 1972, 20, 61-65.	2.8	27
114	Steric and electronic effects on the uncoupling activity of substituted 3,5 dichlorosalicylanilides. <i>FEBS Letters</i> , 1975, 49, 338-341.	2.8	27
115	Measurement of transmembrane pH gradients in human erythrocytes using ^{19}F NMR. <i>Analytical Biochemistry</i> , 1981, 114, 415-418.	2.4	27
116	Cholinergic regulation of fuel-induced hormone secretion and respiration of SUR1 $\hat{\wedge}$ / $\hat{\wedge}$ mouse islets. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2006, 291, E525-E535.	3.5	27
117	Factors Modulating the Oxygen Dependence of Mitochondrial Oxidative Phosphorylation. <i>Advances in Experimental Medicine and Biology</i> , 1988, 222, 121-131.	1.6	27
118	Energy metabolism in muscle and its regulation during individual contraction-relaxation cycles. <i>Trends in Biochemical Sciences</i> , 1981, 6, 16-19.	7.5	26
119	Adenine nucleotide efflux in mitochondria induced by inorganic pyrophosphate. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1982, 680, 28-32.	1.0	26
120	Oxidative phosphorylation: unique regulatory mechanism and role in metabolic homeostasis. <i>Journal of Applied Physiology</i> , 2017, 122, 611-619.	2.5	26
121	Energy-Transducing Components in Mitochondrial Respiration1 1Supported by National Science Foundation grant GB-28125 and National Institute of Health grant GM-12202. DFW is the recipient of U.S. Public Health Service Career Development Award 1-KO4-GM 18154.. <i>Current Topics in Bioenergetics</i> , 1973, 5, 233-265.	2.7	26
122	Mitochondrial cytochrome <i>c</i> oxidase and control of energy metabolism: measurements in suspensions of isolated mitochondria. <i>Journal of Applied Physiology</i> , 2014, 117, 1424-1430.	2.5	25
123	Energy dependence of the half-reduction potential of iron-sulfur center 1 in the site I region of the respiratory chain in pigeon heart mitochondria. <i>Biochemical and Biophysical Research Communications</i> , 1972, 49, 1087-1092.	2.1	24
124	Heme-heme interactions in cytochrome c oxidase; Effects of photodissociation of the CO compound. <i>Biochemical and Biophysical Research Communications</i> , 1972, 48, 1266-1272.	2.1	24
125	Measurement of tumor oxygenation using new frequency domain phosphorimeters. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2002, 132, 153-159.	1.8	24
126	Energy dependence of oxidation-reduction potentials of the b and c cytochromes in beef heart submitochondrial particles. <i>Biochemical and Biophysical Research Communications</i> , 1971, 43, 1186-1191.	2.1	23

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127	Studies on the orientations of the mitochondrial redox carriers. Archives of Biochemistry and Biophysics, 1979, 192, 80-85.	3.0	23
128	Effect of hemorrhagic hypotension on extracellular level of dopamine, cortical oxygen pressure and blood flow in brain of newborn piglets. Neuroscience Letters, 1994, 180, 247-252.	2.1	22
129	Comparison of low-flow cardiopulmonary bypass and circulatory arrest on brain oxygen and metabolism. Annals of Thoracic Surgery, 2004, 77, 2138-2143.	1.3	22
130	Oxygen Distributions in Tissue Measured by Phosphorescence Quenching. Advances in Experimental Medicine and Biology, 2003, 510, 181-185.	1.6	22
131	Palmitic acid acutely inhibits acetylcholine- but not GLP-1-stimulated insulin secretion in mouse pancreatic islets. American Journal of Physiology - Endocrinology and Metabolism, 2010, 299, E475-E485.	3.5	21
132	The oxidation-reduction potentials of iron-sulfur centers in the site I region of the respiratory chain in C. utilis submitochondrial particles. FEBS Letters, 1972, 21, 59-62.	2.8	20
133	The oxidation-reduction potentials and rates of oxidation of the cytochromes of Nitrobacter agilis. Archives of Biochemistry and Biophysics, 1972, 153, 312-319.	3.0	20
134	Intravascular oxygen distribution in subcutaneous 9L tumors and radiation sensitivity. Journal of Applied Physiology, 1997, 82, 1939-1945.	2.5	20
135	Response of Brain Oxygenation and Metabolism to Deep Hypothermic Circulatory Arrest in Newborn Piglets: Comparison of pH-Stat and Alpha-Stat Strategies. Annals of Thoracic Surgery, 2007, 84, 170-176.	1.3	20
136	Metabolic Homeostasis in Life as We Know It: Its Origin and Thermodynamic Basis. Frontiers in Physiology, 2021, 12, 658997.	2.8	20
137	Extended Porphyrins. Advances in Experimental Medicine and Biology, 1997, , 597-603.	1.6	19
138	HEME-HEME INTERACTION BETWEEN THE CYTOCHROMES OF THE MITOCHONDRIAL RESPIRATORY CHAIN*. Annals of the New York Academy of Sciences, 1974, 227, 630-635.	3.8	18
139	[21] Ligands of cytochrome c oxidase. Methods in Enzymology, 1978, 53, 191-201.	1.0	18
140	The effect of hypoxia and catecholamines on regional expression of heat-shock protein-72 mRNA in neonatal piglet brain. Brain Research, 1996, 727, 145-152.	2.2	18
141	Phosphorescence lifetime imaging in turbid media: the inverse problem and experimental image reconstruction. Applied Optics, 2004, 43, 564.	2.1	18
142	Brain oxygenation and metabolism during selective cerebral perfusion in neonates. European Journal of Cardio-thoracic Surgery, 2006, 29, 168-174.	1.4	18
143	Effect of granulocyte-colony stimulating factor on expression of selected proteins involved in regulation of apoptosis in the brain of newborn piglets after cardiopulmonary bypass and deep hypothermic circulatory arrest. Journal of Thoracic and Cardiovascular Surgery, 2012, 143, 1436-1442.	0.8	18
144	The Oxygen Dependence of Cellular Energy Metabolism. Advances in Experimental Medicine and Biology, 1986, 194, 229-239.	1.6	18

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145	Regulation of metabolism: the rest-to-work transition in skeletal muscle. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2015, 309, E793-E801.	3.5	17
146	Feasibility of diffuse optical imaging with long-lived luminescent probes. <i>Optics Letters</i> , 2006, 31, 1082.	3.3	16
147	The thermodynamic basis of glucose-stimulated insulin release: a model of the core mechanism. <i>Physiological Reports</i> , 2017, 5, e13327.	1.7	16
148	Glutamate dehydrogenase: role in regulating metabolism and insulin release in pancreatic β -cells. <i>Journal of Applied Physiology</i> , 2018, 125, 419-428.	2.5	16
149	Oxygen Dependent Quenching of Phosphorescence. <i>Advances in Experimental Medicine and Biology</i> , 1996, 388, 101-107.	1.6	15
150	Regulation of metabolism: the work-to-rest transition in skeletal muscle. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2016, 310, E633-E642.	3.5	15
151	Metabolic homeostasis: oxidative phosphorylation and the metabolic requirements of higher plants and animals. <i>Journal of Applied Physiology</i> , 2018, 125, 1183-1192.	2.5	15
152	α -Dendritic Porphyrins. <i>Advances in Experimental Medicine and Biology</i> , 1997, , 657-662.	1.6	15
153	Binding of cytochrome c to cytochrome c - oxidase in intact mitochondria. A study with radioactive photoaffinity-labeled cytochrome c. <i>Biochemical and Biophysical Research Communications</i> , 1980, 92, 743-748.	2.1	14
154	The effect of thiol reagents on GABA transport in rat brain synaptosomes. <i>FEBS Letters</i> , 1984, 171, 303-308.	2.8	14
155	Role of intramitochondrial pH in the energetics and regulation of mitochondrial oxidative phosphorylation. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1991, 1058, 113-120.	1.0	14
156	Activity of Tyrosine Hydroxylase in the Striatum of Newborn Piglets in Response to Hypocapnic Hypoxia. <i>Journal of Neurochemistry</i> , 1993, 60, 1399-1405.	3.9	14
157	Oxygen dependence of glucose sensing: role in glucose homeostasis and related pathology. <i>Journal of Applied Physiology</i> , 2019, 126, 1746-1755.	2.5	14
158	Oxygen Pressures in the Interstitial Space of Skeletal Muscle and Tumors in vivo. <i>Advances in Experimental Medicine and Biology</i> , 2008, 614, 53-62.	1.6	14
159	Evidence for a structural interaction between ATP synthetase and cytochrome c oxidase in mitochondria. <i>Archives of Biochemistry and Biophysics</i> , 1974, 163, 491-497.	3.0	13
160	Resuscitation with 100%, compared with 21%, oxygen following brief, repeated periods of apnea can protect vulnerable neonatal brain regions from apoptotic injury. <i>Resuscitation</i> , 2008, 76, 261-270.	3.0	13
161	Impact of sodium glucose linked cotransporter α 2 inhibition on renal microvascular oxygen tension in a rodent model of diabetes mellitus. <i>Physiological Reports</i> , 2021, 9, e14890.	1.7	13
162	Brain Oxygenation During Cardiopulmonary Bypass and Circulatory Arrest. <i>Advances in Experimental Medicine and Biology</i> , 2003, 510, 325-330.	1.6	13

#	ARTICLE	IF	CITATIONS
163	Regulation of in Vivo Mitochondrial Oxidative Phosphorylation. , 1982, , 349-355.		13
164	The effect of cholinergic agonists on coronary flow rate and oxygen consumption in isolated perfused rat heart. Journal of Molecular and Cellular Cardiology, 1985, 17, 31-42.	1.9	12
165	The effects of induced apneic episodes on cerebral cortical oxygenation in newborn piglets. Brain Research, 1996, 741, 160-165.	2.2	12
166	Brain oxygen and metabolism is dependent on the rate of low-flow cardiopulmonary bypass following circulatory arrest in newborn piglets. European Journal of Cardio-thoracic Surgery, 2007, 31, 899-905.	1.4	12
167	Measuring Oxygen in Living Tissue: Intravascular, Interstitial, and Tissue Oxygen Measurements. Advances in Experimental Medicine and Biology, 2011, 701, 53-59.	1.6	12
168	Oxygen-dependent quenching of phosphorescence used to characterize improved myocardial oxygenation resulting from vasculogenic cytokine therapy. Journal of Applied Physiology, 2011, 110, 1460-1465.	2.5	12
169	Kainate-induced uptake of calcium by synaptosomes from rat brain. FEBS Letters, 1985, 192, 61-65.	2.8	11
170	Effects of dl-2-Amino-5-Phosphonovalerate on Metabolism of Catecholamines in Synaptosomes from Rat Brain. Journal of Neurochemistry, 1989, 52, 54-60.	3.9	11
171	3,4-Dihydroxyphenylalanine (DOPA) metabolism and retinoic acid induced differentiation in human neuroblastoma. Neurochemical Research, 1994, 19, 1487-1494.	3.3	11
172	Imaging Oxygen Pressure in the Retina of the Mouse Eye. Advances in Experimental Medicine and Biology, 2005, 566, 159-165.	1.6	11
173	Hyperbaric oxygen toxicity in brain: A case of hyperoxia induced hypoglycemic brain syndrome. Medical Hypotheses, 2019, 132, 109375.	1.5	11
174	Oxygenation of Tumors as Evaluated by Phosphorescence Imaging. Advances in Experimental Medicine and Biology, 1994, 345, 539-547.	1.6	11
175	On The Mechanism of Regulation of Cellular Respiration. The Dependence of Respiration on the Cytosolic [ATP], [ADP] and [PI]. Advances in Experimental Medicine and Biology, 1978, 94, 271-278.	1.6	11
176	Oxidation-reduction potentials of respiratory chain components in ThiobacillusA2. Biochimica Et Biophysica Acta - Bioenergetics, 1982, 680, 142-151.	1.0	10
177	Coulometric and potentiometric evaluation of the redox components of cytochrome c oxidase in situ. Biochimica Et Biophysica Acta - Bioenergetics, 1982, 680, 233-241.	1.0	10
178	Regulation of Brain Cell Death and Survival After Cardiopulmonary Bypass. Annals of Thoracic Surgery, 2006, 82, 2247-2253.	1.3	10
179	Mitochondrial cytochrome c oxidase: Mechanism of action and role in regulating oxidative phosphorylation: Reply to Pannala, Beard, and Dash. Journal of Applied Physiology, 2015, 119, 158-158.	2.5	10
180	Oxygen Distributions within R3230AC Tumors Growing in Dorsal Flap Window Chambers in Rats. Advances in Experimental Medicine and Biology, 1998, 454, 603-609.	1.6	10

#	ARTICLE	IF	CITATIONS
181	Evaluation of enzyme systems and their regulation. The inapplicability of irreversible thermodynamics. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1980, 616, 371-380.	2.6	9
182	Activation of tyrosine hydroxylase in the central nervous system by anaerobiosis. <i>Biochemical Pharmacology</i> , 1985, 34, 2975-2982.	4.4	9
183	Excitatory amino acid receptor antagonists decrease hypoxia induced increase in extracellular dopamine in striatum of newborn piglets. <i>Neurochemistry International</i> , 1998, 32, 281-289.	3.8	9
184	Effect of perfusion flow rate on tissue oxygenation in newborn piglets during cardiopulmonary bypass. <i>Annals of Thoracic Surgery</i> , 2003, 75, 560-565.	1.3	9
185	Brain oxygen and metabolism during circulatory arrest with intermittent brief periods of low-flow cardiopulmonary bypass in newborn piglets. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2006, 132, 839-844.	0.8	9
186	Granulocyte Colony Stimulating Factor Reduces Brain Injury in a Cardiopulmonary Bypass-Circulatory Arrest Model of Ischemia in a Newborn Piglet. <i>Neurochemical Research</i> , 2014, 39, 2085-2092.	3.3	9
187	Imaging Oxygen Pressure in the Rodent Retina by Phosphorescence Lifetime. , 2006, 578, 119-124.		9
188	Regulation of Mitochondrial Respiration in Intact Tissues: A Mathematical Model. <i>Advances in Experimental Medicine and Biology</i> , 1978, 94, 279-287.	1.6	9
189	A novel property of mitochondrial oxidative phosphorylation. <i>Biochemical and Biophysical Research Communications</i> , 1974, 56, 635-640.	2.1	8
190	Effect of catecholamines on activity of Na ⁺ , K ⁺ -ATPase in neonatal piglet brain during posthypoxic reoxygenation. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2002, 132, 139-145.	1.8	8
191	Circulatory Arrest and Low-Flow Cardiopulmonary Bypass Alter CREB Phosphorylation in Piglet Brain. <i>Annals of Thoracic Surgery</i> , 2005, 80, 245-250.	1.3	8
192	Rat carotid body chemosensory discharge and glomus cell HIF-1 α expression in vitro: regulation by a common oxygen sensor. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2007, 293, R829-R836.	1.8	8
193	Experimental assessment of oxygen homeostasis during acute hemodilution: the integrated role of hemoglobin concentration and blood pressure. <i>Intensive Care Medicine Experimental</i> , 2017, 5, 12.	1.9	8
194	Renal tissue Po ₂ sensing during acute hemodilution is dependent on the diluent. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2020, 318, R799-R812.	1.8	8
195	Recent Advances in Oxygen Measurements Using Phosphorescence Quenching. <i>Advances in Experimental Medicine and Biology</i> , 1994, 361, 61-66.	1.6	7
196	Response of Cortical Oxygen and Striatal Extracellular Dopamine to Metabolic Acidosis in Newborn Piglets. <i>Advances in Experimental Medicine and Biology</i> , 1997, 411, 103-112.	1.6	7
197	Metabolic Effects of Lowering Oxygen Tension In Vivo. <i>Advances in Experimental Medicine and Biology</i> , 1983, 159, 293-301.	1.6	7
198	Amino acid neurotransmitters in the CNS: effect of thiopental. <i>FEBS Letters</i> , 1984, 177, 249-254.	2.8	6

#	ARTICLE	IF	CITATIONS
199	Some effects of ischaemia and hyperglycaemia on neurotransmitter metabolism in rat brain. <i>Neurological Research</i> , 1985, 7, 120-128.	1.3	6
200	Regulation of calcium uptake in synaptosomes from rat brain by DL-2-amino-5-phosphonovaleric acid. <i>FEBS Letters</i> , 1987, 218, 189-194.	2.8	6
201	Effect of Hydroperoxy Fatty Acids on Acylation and Deacylation of Arachidonoyl Groups in Synaptic Phospholipids. <i>Journal of Neurochemistry</i> , 1992, 58, 107-115.	3.9	6
202	Brain Oxygenation and Metabolism during Repetitive Apnea with Resuscitation of 21% and 100% Oxygen in Newborn Piglets. <i>Neurochemical Research</i> , 2005, 30, 1453-1461.	3.3	6
203	Measuring In Vivo Metabolite Levels in Brain. <i>Sleep</i> , 2011, 34, 837-837.	1.1	6
204	Effect of deep hypothermic circulatory arrest followed by low-flow cardiopulmonary bypass on brain metabolism in newborn piglets: Comparison of pH-stat and I _i -stat management. <i>Pediatric Critical Care Medicine</i> , 2011, 12, e79-e86.	0.5	6
205	Cerebrovascular Blood Flow Design and Regulation; Vulnerability in Aging Brain. <i>Frontiers in Physiology</i> , 2020, 11, 584891.	2.8	6
206	Cytochrome Oxidase is the Primary Oxygen Sensor in the Cat Carotid Body. <i>Advances in Experimental Medicine and Biology</i> , 1996, 388, 213-217.	1.6	6
207	Monitoring Cardiopulmonary Function and Progression Toward Shock: Oxygen Micro-sensor for Peripheral Tissue. <i>Advances in Experimental Medicine and Biology</i> , 2012, 737, 221-227.	1.6	6
208	Integration of Eukaryotic Energy Metabolism: The Intramitochondrial and Cytosolic Energy States ([ATP]f/[ADP]f[Pi]). <i>International Journal of Molecular Sciences</i> , 2022, 23, 5550.	4.1	6
209	Energy relationships between the redox and phosphorylation reactions in Mitochondria. <i>Bioelectrochemistry</i> , 1974, 1, 3-13.	1.0	5
210	Effects of ATP ³ S in isolated rat brain synaptosomes. <i>Biochemical Pharmacology</i> , 1985, 34, 1247-1254.	4.4	5
211	Purification of neurocatin, a neuroregulatory factor from brain. <i>Neuroscience Letters</i> , 1990, 114, 213-219.	2.1	5
212	Neurocatin-induced inhibition of monoamine oxidase a in rat brain synaptosomes. <i>Biochemical Pharmacology</i> , 1991, 42, 2351-2354.	4.4	5
213	Dependence of carotid chemosensory responses on metabolic substrates. <i>Brain Research</i> , 1992, 596, 80-88.	2.2	5
214	Identifying Oxygen Sensors by Their Photochemical Action Spectra. <i>Methods in Enzymology</i> , 2004, 381, 690-704.	1.0	5
215	Granulocyte colony-stimulating factor significantly decreases density of hippocampal caspase 3-positive nuclei, thus ameliorating apoptosis-mediated damage, in a model of ischaemic neonatal brain injury. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2017, 25, 600-605.	1.1	5
216	Renal microvascular oxygen tension during hyperoxia and acute hemodilution assessed by phosphorescence quenching and excitation with blue and red light. <i>Canadian Journal of Anaesthesia</i> , 2021, 68, 214-225.	1.6	5

#	ARTICLE	IF	CITATIONS
217	Contribution of Diffusion to the Oxygen Dependence of Energy Metabolism in Human Neuroblastoma Cells. <i>Advances in Experimental Medicine and Biology</i> , 1989, 248, 829-833.	1.6	5
218	Azide binding to cytochrome c oxidase. <i>Bioelectrochemistry</i> , 1987, 17, 369-381.	1.0	4
219	Modulation of catecholamine metabolism in synaptosomes by a neuroregulatory factor from mammalian brain. <i>Neuroscience Letters</i> , 1989, 98, 111-117.	2.1	4
220	<title>Pd tetrabenzoporphyrin-dendrimers: near-infrared phosphors for oxygen measurements by phosphorescence quenching</title>. , 2002, , .		4
221	CREB phosphorylation following hypoxia and ischemia in striatum of newborn piglets: Possible role of dopamine. <i>Brain Research</i> , 2005, 1040, 169-177.	2.2	4
222	Cerebral Oxygenation During Repetitive Apnea in Newborn Piglets. , 2005, 566, 1-7.		4
223	Tissue Oxygen Sensing and the Carotid Body. <i>Advances in Experimental Medicine and Biology</i> , 1998, 454, 447-454.	1.6	4
224	Monitoring the Dynamics of Tissue Oxygenation in Vivo by Phosphorescence Quenching. <i>Advances in Experimental Medicine and Biology</i> , 2003, 540, 1-5.	1.6	4
225	Regulation of oxidative metabolism and blood flow in skeletal muscle. <i>Medicine and Science in Sports and Exercise</i> , 1996, 28, 305-314.	0.4	4
226	Effect of hemorrhagic hypotension on cortical oxygen pressure and striatal extracellular dopamine in cat brain. <i>Neurochemical Research</i> , 1997, 22, 1111-1117.	3.3	3
227	<title>Oxygen distributions within tissue by phosphorescence quenching</title>. , 2002, , .		3
228	Dependence of Cellular Metabolism and Local Oxygen Delivery on Oxygen Tension. <i>Advances in Experimental Medicine and Biology</i> , 1984, 180, 629-634.	1.6	3
229	THERMODYNAMIC CONTROL OF MITOCHONDRIAL ENERGY COUPLING. , 1972, , 39-52.		3
230	The role of peroxides in mitochondrial reduction of dioxygen to water. <i>Bioelectrochemistry</i> , 1987, 18, 51-58.	1.0	2
231	Effect of hypoxia and reoxygenation on the activity of transglutaminase in brain of newborn piglets. <i>Neuroscience Letters</i> , 1994, 172, 42-46.	2.1	2
232	Simultaneous Monitoring of Brain and Skin Oxygenation During Haemorrhagic Shock in Piglets. <i>Advances in Experimental Medicine and Biology</i> , 2013, 789, 51-57.	1.6	2
233	Oxygen Dependence of Neuronal Metabolism. , 1992, , 85-101.		2
234	An Approach to the Study of Electron Transport Systems. , 1979, , 181-222.		2

#	ARTICLE	IF	CITATIONS
235	ENERGY TRANSDUCTION IN MITOCHONDRIAL RESPIRATION. , 1973, , 527-533.		2
236	Cytochrome Oxidase. , 1979, , 1-70.		2
237	Granulocyte-colony stimulating factor suppresses early inflammatory response of striatum in a cardiopulmonary bypass-circulatory arrest model of ischemic brain injury in newborn piglets. World Journal of Cardiovascular Diseases, 2013, 03, 197-205.	0.2	2
238	A Micro-Light Guide System for Measuring Oxygen by Phosphorescence Quenching. Advances in Experimental Medicine and Biology, 2003, 540, 117-123.	1.6	2
239	Factors Affecting Adaptation of the Mitochondrial Enzyme Content to Cellular Needs. , 1991, , 14-24.		2
240	Brain Injury Following Repetitive Apnea in Newborn Piglets. , 2006, 578, 323-329.		2
241	[1] Kinetic measurements: An overview. Methods in Enzymology, 1978, 54, 1-3.	1.0	1
242	Or a valuable predictive model?. Trends in Biochemical Sciences, 1979, 4, N65.	7.5	1
243	The Oxygen Concentration Dependence of Cytochrome c Oxidase in Oxidative Phosphorylation. , 1982, , 1119-1137.		1
244	The Mitochondrial Respiratory Chain. , 1983, , 249-282.		1
245	Cysteine sulfinic acid modulated calcium permeability in synaptosomes from rat brain. Neuroscience Letters, 1987, 82, 71-76.	2.1	1
246	Site of azide interaction with cytochrome c oxidase in submitochondrial particles from pigeon breast muscle. Bioelectrochemistry, 1987, 17, 383-397.	1.0	1
247	Activation of striatal tyrosine hydroxylase by neurocadin, a neuroregulator from mammalian brain. Neurochemical Research, 1992, 17, 657-663.	3.3	1
248	Altered Gene Expression Following Cardiopulmonary Bypass and Circulatory Arrest. Advances in Experimental Medicine and Biology, 2003, 530, 391-399.	1.6	1
249	Effect of Hypoxia and Ischemia on Expression of Selected Genes in Brain of Newborn Piglets. Advances in Experimental Medicine and Biology, 2003, 510, 319-324.	1.6	1
250	Cellular Control of Mitochondrial Respiration. Advances in Experimental Medicine and Biology, 1976, 75, 137-144.	1.6	1
251	LOW SPIN FERRICYTOCHROME A3: HIGH ENERGY STATE OR INTRINSIC PROBE?. , 1973, , 561-570.		1
252	Energy Metabolism in Cellular Membranes. Comprehensive Chemical Kinetics, 1995, 39, 231-278.	2.3	1

#	ARTICLE	IF	CITATIONS
253	Reply to Tsai, Cabrales, Johnson, and Intaglietta. <i>Journal of Applied Physiology</i> , 2007, 102, 2083-2083.	2.5	1
254	Transmembrane pH and Electrical Gradients: Evaluation and Possible Role in Oxidative Phosphorylation. <i>Advances in Chemistry Series</i> , 1980, , 195-210.	0.6	0
255	Role of cytochrome c oxidase in mitochondrial oxidative phosphorylation. <i>Bioelectrochemistry</i> , 1984, 13, 235-236.	1.0	0
256	Inhibition of [1-14C] Arachidonate Incorporation into Synaptosomal Phospholipids by Lipid Peroxides. <i>Annals of the New York Academy of Sciences</i> , 1989, 559, 500-501.	3.8	0
257	The Effect of Neurocatin on Protein Phosphorylation in Striatal Synaptosomes from Rat Brain. <i>Journal of Neurochemistry</i> , 1993, 60, 1220-1227.	3.9	0
258	Reply to Sakurai. Brain injury in cardiopulmonary bypass surgery. <i>European Journal of Cardio-thoracic Surgery</i> , 2009, 36, 782-783.	1.4	0
259	Reply to "Letter to the Editor: Two of the significant omissions from a "general" model of respiratory energy transduction" <i>Journal of Applied Physiology</i> , 2019, 126, 1172-1172.	2.5	0
260	3D Imaging of Oxygen in Tissue by Diffuse Near Infra-Red Light. , 2005, , .		0
261	CYTOCHROME C - CYTOCHROME OXIDASE INTERACTION DURING ELECTRON TRANSFER. , 1978, , 69-78.		0
262	METABOLIC SENSING OF CELLULAR OXYGEN TENSION. , 1981, , 391-398.		0
263	The Mitochondrial Respiratory Chain Energetics and Control. , 1987, , 301-336.		0
264	Dependence of the 3-OH-Butyrate Dehydrogenase and Cytochrome c Oxidase Reactions on Intramitochondrial pH. , 1987, , 347-356.		0
265	Tissue Oxygen Pressure and Oxygen Sensing by the Carotid Body. , 1998, , 377-387.		0