Miguel A Aon

List of Publications by Year
in descending order

186 papers	10,282 citations	36203 51 h-index	38300 95 g-index
196 all docs	196 docs citations	196 times ranked	10919 citing authors

#	Article	IF	Citations
1	Computational modeling of mitochondrial K+- and H+-driven ATP synthesis. Journal of Molecular and Cellular Cardiology, 2022, 165, 9-18.	0.9	7
2	ATP synthase K+- and H+-fluxes drive ATP synthesis and enable mitochondrial K+-â€œuniporterâ€•function: II. Ion and ATP synthase flux regulation. Function, 2022, 3, zqac001.	1.1	20
3	ATP Synthase K+- and H+-Fluxes Drive ATP Synthesis and Enable Mitochondrial K+-â€œUniporterâ€• Function: I. Characterization of Ion Fluxes. Function, 2022, 3, zqab065.	1.1	25
4	Setting the Record Straight: A New Twist on the Chemiosmotic Mechanism of Oxidative Phosphorylation. Function, 2022, 3, .	1.1	8
5	Computational Approaches and Tools as Applied to the Study of Rhythms and Chaos in Biology. Methods in Molecular Biology, 2022, , 277-341.	0.4	4
6	Age-dependent impact of two exercise training regimens on genomic and metabolic remodeling in skeletal muscle and liver of male mice. , 2022, 8, .		6
7	Mitochondrial Ca2+, redox environment and ROS emission in heart failure: Two sides of the same coin?. Journal of Molecular and Cellular Cardiology, 2021, 151, 113-125.	0.9	24
8	Mitochondrial health is enhanced in rats with higher vs. lower intrinsic exercise capacity and extended lifespan. Npj Aging and Mechanisms of Disease, 2021, 7, 1.	4.5	20
9	Computational Modeling of Mitochondrial K+ and H+-Driven ATP Synthesis and Volume Regulation. Biophysical Journal, 2021, 120, 171a.	0.2	0
10	A cross-sectional study of functional and metabolic changes during aging through the lifespan in male mice. ELife, 2021, 10, .	2.8	47
11	From chronology to the biology of aging, and its tuning by mitochondrial health: overview of the Bioenergetics, Mitochondria, and Metabolism subgroup symposium at the 2021 Virtual 65th Annual Meeting of the Biophysical Society. Biophysical Reviews, 2021, 13, 311-314.	1.5	1
12	The synthesis and characterization of Bri2 BRICHOS coated magnetic particles and their application to protein fishing: Identification of novel binding proteins. Journal of Pharmaceutical and Biomedical Analysis, 2021, 198, 113996.	1.4	1
13	Differences in molecular phenotype in mouse and human hypertrophic cardiomyopathy. Scientific Reports, 2021, 11, 13163.	1.6	17
14	Diet composition influences the metabolic benefits of short cycles of very low caloric intake. Nature Communications, 2021, 12, 6463.	5.8	12
15	Metabolic remodelling of glucose, fatty acid and redox pathways in the heart of type 2 diabetic mice. Journal of Physiology, 2020, 598, 1393-1415.	1.3	34
16	K+-Driven ATP Synthesis in Isolated Heart Mitochondria. Biophysical Journal, 2020, 118, 129a.	0.2	1
17	NQO1 protects obese mice through improvements in glucose and lipid metabolism. Npj Aging and Mechanisms of Disease, 2020, 6, 13.	4.5	20
18	Elucidating the mechanisms by which disulfiram protects against obesity and metabolic syndrome. Npj Aging and Mechanisms of Disease, 2020, 6, 8.	4.5	12

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19	Untangling Determinants of Enhanced Health and Lifespan through a Multi-omics Approach in Mice. Cell Metabolism, 2020, 32, 100-116.e4.	7.2	85
20	Disulfiram Treatment Normalizes Body Weight in Obese Mice. Cell Metabolism, 2020, 32, 203-214.e4.	7.2	46
21	Proteomic signatures of in vivo muscle oxidative capacity in healthy adults. Aging Cell, 2020, 19, e13124.	3.0	13
22	Diabetes Increases the Vulnerability of the Cardiac Mitochondrial Network to Criticality. Frontiers in Physiology, 2020, 11, 175.	1.3	8
23	Mitochondrial ATP Synthase Utilizes Both K+ and H+ Conductances to Drive ATP Synthesis. Biophysical Journal, 2020, 118, 441a.	0.2	1
24	Metabolic Enzyme Acetylation is Elicited in Response to Stress Induced by Cardiac Specific Overexpression of Human ADCY8. FASEB Journal, 2020, 34, 1-1.	0.2	0
25	ADCK2 Haploinsufficiency Reduces Mitochondrial Lipid Oxidation and Causes Myopathy Associated with CoQ Deficiency. Journal of Clinical Medicine, 2019, 8, 1374.	1.0	27
26	Alternate Day Fasting Improves Physiological and Molecular Markers of Aging in Healthy, Non-obese Humans. Cell Metabolism, 2019, 30, 462-476.e6.	7.2	256
27	Systems Biology of Control and Regulation of Substrate Selection in Cytoplasmic and Mitochondrial Catabolic Networks. Biophysical Journal, 2019, 116, 132a.	0.2	0
28	Control and Regulation of Substrate Selection in Cytoplasmic and Mitochondrial Catabolic Networks. A Systems Biology Analysis. Frontiers in Physiology, 2019, 10, 201.	1.3	20
29	Systemic Metabolomics and Mitochondrial Energetics in High- Compared to Low-Running Capacity Rats as a Function of Age. Biophysical Journal, 2019, 116, 271a-272a.	0.2	0
30	Empagliflozin and HFrEF. JACC Basic To Translational Science, 2019, 4, 841-844.	1.9	6
31	Daily Fasting Improves Health and Survival in Male Mice Independent of Diet Composition and Calories. Cell Metabolism, 2019, 29, 221-228.e3.	7.2	210
32	From the seminal discovery of proteoglycogen and glycogenin to emerging knowledge and research on glycogen biology. Biochemical Journal, 2019, 476, 3109-3124.	1.7	7
33	Nicotinamide Improves Aspects of Healthspan, but Not Lifespan, in Mice. Cell Metabolism, 2018, 27, 667-676.e4.	7.2	242
34	Enhanced Respiratory Reserve Sustained by Lipid Oxidation and Autophagy Underlie Extended Lifespan in High- Compared to Low-Running Capacity Rats. Biophysical Journal, 2018, 114, 661a.	0.2	0
35	Mitochondrial Chaos: Redox-Energetic Behavior at the Edge. Biophysical Journal, 2018, 114, 334a.	0.2	0
36	High Intrinsic Aerobic Endurance Capacity Preserves Cardiomyocyte Quality Control, Mitochondrial Fitness and Lifespan. Biophysical Journal, 2018, 114, 662a.	0.2	0

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37	Mitochondrial chaotic dynamics: Redox-energetic behavior at the edge of stability. Scientific Reports, 2018, 8, 15422.	1.6	22
38	Overexpression of <scp>CYB</scp>5R3 and <scp>NQO</scp>1, two <scp>NAD</scp>⁺â€producing enzymes, mimics aspects of caloric restriction. Aging Cell, 2018, 17, e12767.	3.0	32
39	Metabolic and molecular framework for the enhancement of endurance by intermittent food deprivation. FASEB Journal, 2018, 32, 3844-3858.	0.2	45
40	Plasma proteomic signature of age in healthy humans. Aging Cell, 2018, 17, e12799.	3.0	325
41	Computational Modeling of Mitochondrial Function from a Systems Biology Perspective. Methods in Molecular Biology, 2018, 1782, 249-265.	0.4	9
42	Assessing Spatiotemporal and Functional Organization of Mitochondrial Networks. Methods in Molecular Biology, 2018, 1782, 383-402.	0.4	11
43	Temporal metabolic partitioning of the yeast and protist cellular networks: the cell is a global scale-invariant (fractal or self-similar) multioscillator. Journal of Biomedical Optics, 2018, 24, 1.	1.4	11
44	Allele-specific differences in transcriptome, miRNome, and mitochondrial function in two hypertrophic cardiomyopathy mouse models. JCI Insight, 2018, 3, .	2.3	33
45	The fractal organization of ultradian rhythms in avian behavior. Scientific Reports, 2017, 7, 684.	1.6	22
46	Substrate Selection and Its Impact on Mitochondrial Respiration and Redox. Biological and Medical Physics Series, 2017, , 349-375.	0.3	7
47	Functional Implications of Cardiac Mitochondria Clustering. Advances in Experimental Medicine and Biology, 2017, 982, 1-24.	0.8	10
48	Quantitative Modeling of Pyruvate Dehydrogenase and its Impact in Substrate Selection, Mitochondrial Respiration and Redox. Biophysical Journal, 2017, 112, 439a.	0.2	0
49	Mitochondrial Respiration and ROS Emission From Î²-Oxidation in the Heart: An Experimental Computational Study. Biophysical Journal, 2017, 112, 132a.	0.2	0
50	Differences in Mirnome, Transcriptome and Mitochondrial Function in 2 Mouse Models of Hypertrophic Cardiomyopathy Atprehypertrophic Stage Suggest Need for Precision Medicine Approach to Treatment. Journal of Cardiac Failure, 2017, 23, S3-S4.	0.7	0
51	Network dynamics: quantitative analysis of complex behavior in metabolism, organelles, and cells, from experiments to models and back. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2017, 9, e1352.	6.6	38
52	Cardiosphere-Derived Cells DemonstrateÂMetabolic Flexibility ThatÂIsÂInfluenced by Adhesion Status. JACC Basic To Translational Science, 2017, 2, 543-560.	1.9	11
53	Mitochondrial respiration and ROS emission during Î²-oxidation in the heart: An experimental-computational study. PLoS Computational Biology, 2017, 13, e1005588.	1.5	51
54	High resolution, week-long, locomotion time series from Japanese quail in a home-box environment. Scientific Data, 2016, 3, 160036.	2.4	7

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55	Mitochondrial health, the epigenome and healthspan. Clinical Science, 2016, 130, 1285-1305.	1.8	57
56	Mitochondrial redox and pH signaling occurs in axonal and synaptic organelle clusters. Scientific Reports, 2016, 6, 23251.	1.6	22
57	Effects of Sex, Strain, and Energy Intake on Hallmarks of Aging in Mice. Cell Metabolism, 2016, 23, 1093-1112.	7.2	360
58	Impaired mitochondrial energy supply coupled to increased H2O2 emission under energy/redox stress leads to myocardial dysfunction during TypeÂI diabetes. Clinical Science, 2015, 129, 561-574.	1.8	37
59	Systems Biology of the Fluxome. Processes, 2015, 3, 607-618.	1.3	11
60	Mitochondria: hubs of cellular signaling, energetics and redox balance. A rich, vibrant, and diverse landscape of mitochondrial research. Frontiers in Physiology, 2015, 6, 94.	1.3	16
61	Restoring redox balance enhances contractility in heart trabeculae from type 2 diabetic rats exposed to high glucose. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 308, H291-H302.	1.5	42
62	Protective Mechanisms of Mitochondria and Heart Function in Diabetes. Antioxidants and Redox Signaling, 2015, 22, 1563-1586.	2.5	59
63	From Metabolomics to Fluxomics: A Computational Procedure to Translate Metabolite Profiles into Metabolic Fluxes. Biophysical Journal, 2015, 108, 163-172.	0.2	76
64	Mitochondrial Networks in Cardiac Myocytes Reveal Dynamic Coupling Behavior. Biophysical Journal, 2015, 108, 1922-1933.	0.2	46
65	Exercise Heart Rates in Patients With Hypertrophic Cardiomyopathy. American Journal of Cardiology, 2015, 115, 1144-1150.	0.7	21
66	Diabetic Cardiomyopathy and the Role of Mitochondrial Dysfunction: Novel Insights, Mechanisms, and Therapeutic Strategies. Antioxidants and Redox Signaling, 2015, 22, 1499-1501.	2.5	19
67	ErbB2 overexpression upregulates antioxidant enzymes, reduces basal levels of reactive oxygen species, and protects against doxorubicin cardiotoxicity. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H1271-H1280.	1.5	85
68	Palmitate Re-Directs Glucose Utilization in Type 2 Diabetic Hearts, Improving Function: A Metabolomic-Fluxomic Study. Biophysical Journal, 2015, 108, 315a.	0.2	0
69	Rhythms, Clocks and Deterministic Chaos in Unicellular Organisms. , 2015, , 367-399.		4
70	Biochemistry, Chaotic Dynamics, Noise, and Fractal Space in. , 2015, , 1-22.		0
71	Intracellular oxygen: Similar results from two methods of measurement using phosphorescent nanoparticles. Journal of Innovative Optical Health Sciences, 2014, 07, 1350041.	0.5	7
72	Cardiac mitochondria exhibit dynamic functional clustering. Frontiers in Physiology, 2014, 5, 329.	1.3	22

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73	Mitochondrial and cellular mechanisms for managing lipid excess. Frontiers in Physiology, 2014, 5, 282.	1.3	202
74	Complex oscillatory redox dynamics with signaling potential at the edge between normal and pathological mitochondrial function. Frontiers in Physiology, 2014, 5, 257.	1.3	24
75	Mitochondrial Reactive Oxygen Species (ROS) and Arrhythmias. , 2014, , 1047-1076.		4
76	Redox-Optimized ROS Balance and the relationship between mitochondrial respiration and ROS. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 287-295.	0.5	129
77	Antioxidant defences of Spironucleus vortens: Glutathione is the major non-protein thiol. Molecular and Biochemical Parasitology, 2014, 196, 45-52.	0.5	14
78	Effect of Isoflurane on Myocardial Energetic and Oxidative Stress in Cardiac Muscle from Zucker Diabetic Fatty Rat. Journal of Pharmacology and Experimental Therapeutics, 2014, 349, 21-28.	1.3	7
79	Function of metabolic and organelle networks in crowded and organized media. Frontiers in Physiology, 2014, 5, 523.	1.3	13
80	Temporal Partitioning of the Yeast Cellular Network. Springer Series in Biophysics, 2014, , 323-349.	0.4	8
81	Complex Systems Biology of Networks: The Riddle and the Challenge. Springer Series in Biophysics, 2014, , 19-35.	0.4	5
82	Dynamics of Mitochondrial Redox and Energy Networks: Insights from an Experimentalâ€"Computational Synergy. Springer Series in Biophysics, 2014, , 115-144.	0.4	4
83	From Physiology, Genomes, Systems, and Self-Organization to Systems Biology: The Historical Roots of a Twenty-First Century Approach to Complexity. Springer Series in Biophysics, 2014, , 3-17.	0.4	2
84	Integrating Mitochondrial Energetics, Redox and ROS Metabolic Networks: A Two-Compartment Model. Biophysical Journal, 2013, 104, 332-343.	0.2	94
85	Electromechanical Relationship in Hypertrophic Cardiomyopathy. Journal of Cardiovascular Translational Research, 2013, 6, 604-615.	1.1	9
86	Redox-Dependent Differential Optimization of Contractile Work in Cardiac Muscle from Diabetic Rat under Hyperglycemia. Biophysical Journal, 2013, 104, 303a.	0.2	1
87	Integrating Mitochondrial Energetics, Redox and Ros Metabolic Networks: A Two-Compartment Model. Biophysical Journal, 2013, 104, 657a.	0.2	1
88	Aldose Reductase Inhibition or Activation of Transketolase Offset Adverse Metabolic Remodeling Improving Function in Type 2 Diabetes Myocytes Exposed to Hyperglycemia. Biophysical Journal, 2013, 104, 159a.	0.2	1
89	Mitochondrial dysfunction, alternans, and arrhythmias. Frontiers in Physiology, 2013, 4, 83.	1.3	5
90	Glutathione oxidation unmasks proarrhythmic vulnerability of chronically hyperglycemic guinea pigs. American Journal of Physiology - Heart and Circulatory Physiology, 2013, 304, H916-H926.	1.5	20

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91	Bioenergetics of Contractile Function in Heart Trabeculae from Diabetic Rats. Biophysical Journal, 2012, 102, 571a.	0.2	1
92	What yeast and cardiomyocytes share: ultradian oscillatory redox mechanisms of cellular coherence and survival. Integrative Biology (United Kingdom), 2012, 4, 65-74.	0.6	33
93	Glutathione/thioredoxin systems modulate mitochondrial H2O2 emission: An experimental-computational study. Journal of General Physiology, 2012, 139, 479-491.	0.9	180
94	Mitochondrial network energetics in the heart. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2012, 4, 599-613.	6.6	25
95	Depletion of cellular glutathione modulates LIF-induced JAK1-STAT3 signaling in cardiac myocytes. International Journal of Biochemistry and Cell Biology, 2012, 44, 2106-2115.	1.2	19
96	Palmitate Improves Basal and Î²-Stimulated Left Ventricle Function in Diabetic Mouse Hearts. Biophysical Journal, 2012, 102, 141a.	0.2	0
97	Evidence for Chaos in Mitochondrial Dynamics. Biophysical Journal, 2012, 102, 572a.	0.2	0
98	Palmitate Improves Redox Balance and Enhances Contractility While Offsetting Adverse Effects of Hyperglycemia in the Diabetic Cardiomyocyte. Biophysical Journal, 2012, 102, 571a.	0.2	0
99	GSH or Palmitate Preserves Mitochondrial Energetic/Redox Balance, Preventing Mechanical Dysfunction in Metabolically Challenged Myocytes/Hearts From Type 2 Diabetic Mice. Diabetes, 2012, 61, 3094-3105.	0.3	77
100	Time-Structure of the Yeast Metabolism In vivo. Advances in Experimental Medicine and Biology, 2012, 736, 359-379.	0.8	21
101	Computational Modeling of Mitochondrial Function. Methods in Molecular Biology, 2012, 810, 311-326.	0.4	21
102	Mitochondrial Energetics, pH Regulation, and Ion Dynamics: AÂComputational-Experimental Approach. Biophysical Journal, 2011, 100, 2894-2903.	0.2	63
103	Dynamic modulation of Ca2+ sparks by mitochondrial oscillations in isolated guinea pig cardiomyocytes under oxidative stress. Journal of Molecular and Cellular Cardiology, 2011, 51, 632-639.	0.9	67
104	Metabolic control analysis applied to mitochondrial networks. , 2011, 2011, 4673-6.		1
105	ATP Synthesis, Mitochondrial Function, and Steroid Biosynthesis in Rodent Primary and Tumor Leydig Cells1. Biology of Reproduction, 2011, 84, 976-985.	1.2	73
106	Thioredoxin Reductase-2 Is Essential for Keeping Low Levels of H2O2 Emission from Isolated Heart Mitochondria. Journal of Biological Chemistry, 2011, 286, 33669-33677.	1.6	166
107	Bcl-xL regulates mitochondrial energetics by stabilizing the inner membrane potential. Journal of Cell Biology, 2011, 195, 263-276.	2.3	182
108	Bcl-x_Lregulates mitochondrial energetics by stabilizing the inner membrane potential. Journal of Experimental Medicine, 2011, 208, i29-i29.	4.2	0

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109	Energetic performance is improved by specific activation of K+ fluxes through KCa channels in heart mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 71-80.	0.5	81
110	From isolated to networked: a paradigmatic shift in mitochondrial physiology. Frontiers in Physiology, 2010, 1, 20.	1.3	13
111	Wavelet analysis reveals heterogeneous time-dependent oscillations of individual mitochondria. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 299, H1736-H1740.	1.5	33
112	Spatio-temporal oscillations of individual mitochondria in cardiac myocytes reveal modulation of synchronized mitochondrial clusters. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14315-14320.	3.3	96
113	A Reaction-Diffusion Model of ROS-Induced ROS Release in a Mitochondrial Network. PLoS Computational Biology, 2010, 6, e1000657.	1.5	131
114	Cardiac arrhythmias induced by glutathione oxidation can be inhibited by preventing mitochondrial depolarization. Journal of Molecular and Cellular Cardiology, 2010, 48, 673-679.	0.9	96
115	Optical imaging of mitochondrial function uncovers actively propagating waves of mitochondrial membrane potential collapse across intact heart. Journal of Molecular and Cellular Cardiology, 2010, 49, 565-575.	0.9	51
116	Control and Regulation of Integrated Mitochondrial Function in Metabolic and Transport Networks. International Journal of Molecular Sciences, 2009, 10, 1500-1513.	1.8	25
117	From mitochondrial dynamics to arrhythmias. International Journal of Biochemistry and Cell Biology, 2009, 41, 1940-1948.	1.2	106
118	Control and Regulation of Mitochondrial Energetics in an Integrated Model of Cardiomyocyte Function. Biophysical Journal, 2009, 96, 2466-2478.	0.2	70
119	Modeling Cardiac Action Potential Shortening Driven by Oxidative Stress-Induced Mitochondrial Oscillations in Guinea Pig Cardiomyocytes. Biophysical Journal, 2009, 97, 1843-1852.	0.2	77
120	Biochemistry, Chaotic Dynamics, Noise, and Fractal Space in. , 2009, , 476-489.		7
121	Glutathione oxidation as a trigger of mitochondrial depolarization and oscillation in intact hearts. Journal of Molecular and Cellular Cardiology, 2008, 45, 650-660.	0.9	88
122	Effects of 4'-chlorodiazepam on cellular excitation-contraction coupling and ischaemia-reperfusion injury in rabbit heart. Cardiovascular Research, 2008, 79, 141-149.	1.8	79
123	The Scale-Free Dynamics of Eukaryotic Cells. PLoS ONE, 2008, 3, e3624.	1.1	66
124	Mitochondrial Oscillations in Physiology and Pathophysiology. Advances in Experimental Medicine and Biology, 2008, 641, 98-117.	0.8	113
125	A ligand to the mitochondrial benzodiazepine receptor prevents ventricular arrhythmias and LV dysfunction after ischemia or glutathione depletion. FASEB Journal, 2008, 22, 747.7.	0.2	4
126	Sequential Opening of Mitochondrial Ion Channels as a Function of Glutathione Redox Thiol Status. Journal of Biological Chemistry, 2007, 282, 21889-21900.	1.6	185

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127	Nitroxyl Improves Cellular Heart Function by Directly Enhancing Cardiac Sarcoplasmic Reticulum Ca 2+ Cycling. Circulation Research, 2007, 100, 96-104.	2.0	209
128	Single and cell population respiratory oscillations in yeast: A 2-photon scanning laser microscopy study. FEBS Letters, 2007, 581, 8-14.	1.3	50
129	Diallyl disulphide depletes glutathione inCandida albicans: oxidative stress-mediated cell death studied by two-photon microscopy. Yeast, 2007, 24, 695-706.	0.8	69
130	A Computational Model Integrating Electrophysiology, Contraction, and Mitochondrial Bioenergetics in the Ventricular Myocyte. Biophysical Journal, 2006, 91, 1564-1589.	0.2	198
131	The Fundamental Organization of Cardiac Mitochondria as a Network of Coupled Oscillators. Biophysical Journal, 2006, 91, 4317-4327.	0.2	121
132	Mitochondrial criticality: A new concept at the turning point of life or death. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2006, 1762, 232-240.	1.8	135
133	Impaired shear stress-induced nitric oxide production through decreased NOS phosphorylation contributes to age-related vascular stiffness. Journal of Applied Physiology, 2006, 101, 1751-1759.	1.2	118
134	Elevated Cytosolic Na + Decreases Mitochondrial Ca 2+ Uptake During Excitation-Contraction Coupling and Impairs Energetic Adaptation in Cardiac Myocytes. Circulation Research, 2006, 99, 172-182.	2.0	335
135	Mitochondrial Ion Channels: Gatekeepers of Life and Death. Physiology, 2005, 20, 303-315.	1.6	218
136	Antiarrhythmic Engineering of Skeletal Myoblasts for Cardiac Transplantation. Circulation Research, 2005, 97, 159-167.	2.0	273
137	Allyl alcohol and garlic (Allium sativum) extract produce oxidative stress in Candida albicans. Microbiology (United Kingdom), 2005, 151, 3257-3265.	0.7	83
138	The mitochondrial origin of postischemic arrhythmias. Journal of Clinical Investigation, 2005, 115, 3527-3535.	3.9	301
139	Percolation and criticality in a mitochondrial network. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4447-4452.	3.3	216
140	The fractal architecture of cytoplasmic organization: Scaling, kinetics and emergence in metabolic networks. Molecular and Cellular Biochemistry, 2004, 256, 169-184.	1.4	49
141	A Mitochondrial Oscillator Dependent on Reactive Oxygen Species. Biophysical Journal, 2004, 87, 2060-2073.	0.2	206
142	Ultrasensitive behavior in the synthesis of storage polysaccharides in cyanobacteria. Planta, 2003, 216, 969-975.	1.6	35
143	An Integrated Model of Cardiac Mitochondrial Energy Metabolism and Calcium Dynamics. Biophysical Journal, 2003, 84, 2734-2755.	0.2	345
144	Synchronized Whole Cell Oscillations in Mitochondrial Metabolism Triggered by a Local Release of Reactive Oxygen Species in Cardiac Myocytes. Journal of Biological Chemistry, 2003, 278, 44735-44744.	1.6	476

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145	Coherent and robust modulation of a metabolic network by cytoskeletal organization and dynamics. Biophysical Chemistry, 2002, 97, 213-231.	1.5	29
146	I. Spatio-temporal patterns of soil microbial and enzymatic activities in an agricultural soil. Applied Soil Ecology, 2001, 18, 239-254.	2.1	136
147	II. Temporal and spatial evolution of enzymatic activities and physico-chemical properties in an agricultural soil. Applied Soil Ecology, 2001, 18, 255-270.	2.1	230
148	Why Homeodynamics, Not Homeostasis?. Scientific World Journal, The, 2001, 1, 133-145.	0.8	115
149	Fluorescein Diacetate Hydrolysis as a Measure of Fungal Biomass in Soil. Current Microbiology, 2001, 42, 339-344.	1.0	50
150	ULTRASENSITIVITY IN (SUPRA)MOLECULARLY ORGANIZED AND CROWDED ENVIRONMENTS. Cell Biology International, 2001, 25, 1091-1099.	1.4	17
151	Measurement of the glycogen synthetic pathway in permeabilized cells of cyanobacteria. FEMS Microbiology Letters, 2001, 194, 7-11.	0.7	12
152	A METHOD FOR QUANTIFYING RATES OF O2 CONSUMPTION AND CO2 PRODUCTION IN SOIL. Soil Science, 2001, 166, 68-77.	0.9	15
153	Dynamics of metabolism and its interactions with gene expression during sporulation in Saccharomyces cerevisiae. Advances in Microbial Physiology, 2000, 43, 75-115.	1.0	3
154	Kinetic and structural analysis of the ultrasensitive behaviour of cyanobacterial ADP-glucose pyrophosphorylase. Biochemical Journal, 2000, 350, 139.	1.7	16
155	Kinetic and structural analysis of the ultrasensitive behaviour of cyanobacterial ADP-glucose pyrophosphorylase. Biochemical Journal, 2000, 350, 139-147.	1.7	30
156	CHAOTIC DYNAMICS AND FRACTAL SPACE IN BIOCHEMISTRY: SIMPLICITY UNDERLIES COMPLEXITY. Cell Biology International, 2000, 24, 581-587.	1.4	35
157	Effects of Stress on Cellular Infrastructure and Metabolic Organization in Plant Cells. International Review of Cytology, 1999, 194, 239-273.	6.2	31
158	Quantitation of the Effects of Disruption of Catabolite (De)Repression Genes on the Cell Cycle Behavior of Saccharomyces cerevisiae. Current Microbiology, 1999, 38, 57-60.	1.0	8
159	Modulation of urokinase-type plasminogen activator and metalloproteinase activities in cultured mouse mammary-carcinoma cells: Enhancement by paclitaxel and inhibition by nocodazole. , 1999, 83, 242-246.		11
160	Ultrasensitive glycogen synthesis inCyanobacteria. FEBS Letters, 1999, 446, 117-121.	1.3	29
161	Catabolite repression mutants ofSaccharomyces cerevisiae show altered fermentative metabolism as well as cell cycle behavior in glucose-limited chemostat cultures. , 1998, 59, 203-213.		20
162	The onset of fermentative metabolism in continuous cultures depends on the catabolite repression properties of saccharomyces cerevisiae. Enzyme and Microbial Technology, 1998, 22, 705-712.	1.6	17

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163	Modulation of sporulation and metabolic fluxes in Saccharomyces cerevisiae by 2 deoxy glucose. Antonie Van Leeuwenhoek, 1997, 72, 283-290.	0.7	6
164	Distributed control of the glycolytic flux in wild-type cells and catabolite repression mutants of Saccharomyces cerevisiae growing in carbon-limited chemostat cultures. Enzyme and Microbial Technology, 1997, 21, 596-602.	1.6	19
165	Fluxes of carbon, phosphorylation, and redox intermediates during growth ofsaccharomyces cerevisiae on different carbon sources. Biotechnology and Bioengineering, 1995, 47, 193-208.	1.7	86
166	Decreased mitochondrial biogenesis in temperature-sensitive cell division cycle mutants of Saccharomyces cerevisiae. Current Microbiology, 1995, 31, 327-331.	1.0	6
167	Cell growth and differentiation from the perspective of dynamical organization of cellular and subcellular processes. Progress in Biophysics and Molecular Biology, 1995, 64, 55-79.	1.4	7
168	Carbon and Energetic Uncoupling Are Associated with Block of Division at Different Stages of the Cell Cycle in Several cdc Mutants of Saccharomyces cerevisiae. Experimental Cell Research, 1995, 217, 42-51.	1.2	15
169	Carbon and Energy Uncoupling Associated with Cell Cycle Arrest of cdc Mutants of Saccharomyces cerevisiae May Be Linked to Glucose-Induced Catabolite Repression. Experimental Cell Research, 1995, 217, 52-56.	1.2	10
170	Spatio-temporal regulation of glycolysis and oxidative phosphorylation in vivo in tumor and yeast cells.. Cell Biology International, 1994, 18, 687-714.	1.4	23
171	Microtubular protein in its polymerized or nonpolymerized states differentially modulates in vitro and intracellular fluxes catalyzed by enzymes of carbon metabolism. Journal of Cellular Biochemistry, 1994, 55, 120-132.	1.2	30
172	Metabolic control analysis of glycolysis and branching to ethanol production in chemostat cultures of Saccharomyces cerevisiae under carbon, nitrogen, or phosphate limitations. Enzyme and Microbial Technology, 1994, 16, 761-770.	1.6	32
173	On the fractal nature of cytoplasm. FEBS Letters, 1994, 344, 1-4.	1.3	39
174	Altered topoisomerase activities may be involved in the regulation of DNA supercoiling in aerobic-anaerobic transitions inEscherichia coli. Molecular and Cellular Biochemistry, 1993, 126, 115-124.	1.4	18
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