Hans Westerhoff

List of Publications by Year
in descending order

418	23,217	79	131
papers	citations	h-index	g-index
		6613	12946

448	448	448	17821
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A functional genomics strategy that uses metabolome data to reveal the phenotype of silent mutations. Nature Biotechnology, 2001, 19, 45-50.	17.5	948
2	A community-driven global reconstruction of human metabolism. Nature Biotechnology, 2013, 31, 419-425.	17.5	920
3	Can yeast glycolysis be understood in terms of in vitro kinetics of the constituent enzymes? Testing biochemistry. FEBS Journal, 2000, 267, 5313-5329.	0.2	587
4	A consensus yeast metabolic network reconstruction obtained from a community approach to systems biology. Nature Biotechnology, 2008, 26, 1155-1160.	17.5	530
5	The evolution of molecular biology into systems biology. Nature Biotechnology, 2004, 22, 1249-1252.	17.5	460
6	The nature of systems biology. Trends in Microbiology, 2007, 15, 45-50.	7.7	446
7	Untangling the wires: A strategy to trace functional interactions in signaling and gene networks. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 12841-12846.	7.1	386
8	Cancer: A Systems Biology disease. BioSystems, 2006, 83, 81-90.	2.0	359
9	Transcriptome meets metabolome: hierarchical and metabolic regulation of the glycolytic pathway. FEBS Letters, 2001, 500, 169-171.	2.8	315
10	The Glycolytic Flux in <i>Escherichia coli</i> Is Controlled by the Demand for ATP. Journal of Bacteriology, 2002, 184, 3909-3916.	2.2	315
11	Magainins and the disruption of membrane-linked free-energy transduction. Proceedings of the National Academy of Sciences of the United States of America, 1989, 86, 6597-6601.	7.1	289
12	Nitrogen Assimilation in Escherichia coli: Putting Molecular Data into a Systems Perspective. Microbiology and Molecular Biology Reviews, 2013, 77, 628-695.	6.6	237
13	The fluxes through glycolytic enzymes in <i>Saccharomyces cerevisiae</i> are predominantly regulated at posttranscriptional levels. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15753-15758.	7.1	223
14	The danger of metabolic pathways with turbo design. Trends in Biochemical Sciences, 1998, 23, 162-169.	7.5	216
15	Why cytoplasmic signalling proteins should be recruited to cell membranes. Trends in Cell Biology, 2000, 10, 173-178.	7.9	216
16	An alternative P_{II} protein in the regulation of glutamine synthetase in <i>Escherichia coli</i>. Molecular Microbiology, 1996, 21, 133-146.	2.5	205
17	A minimal hypothesis for membrane-linked free-energy transduction. Biochimica Et Biophysica Acta - Reviews on Bioenergetics, 1984, 768, 257-292.	0.2	199
18	Metabolic engineering of lactic acid bacteria, the combined approach: kinetic modelling, metabolic control and experimental analysis The GenBank accession number for the sequence reported in this paper is AY046926.. Microbiology (United Kingdom), 2002, 148, 1003-1013.	1.8	196

#	Article	IF	Citations
19	Glycolysis in Bloodstream Form Trypanosoma brucei Can Be Understood in Terms of the Kinetics of the Glycolytic Enzymes. Journal of Biological Chemistry, 1997, 272, 3207-3215.	3.4	194
20	Cytosolic triglycerides and oxidative stress in central obesity: the missing link between excessive atherosclerosis, endothelial dysfunction, and Î²-cell failure?. Atherosclerosis, 2000, 148, 17-21.	0.8	185
21	Modern theories of metabolic control and their applications. Bioscience Reports, 1984, 4, 1-22.	2.4	183
22	Expression of nitrite reductase in <i>Nitrosomonas europaea</i> involves NsrR, a novel nitriteâ€sensitive transcription repressor. Molecular Microbiology, 2004, 54, 148-158.	2.5	177
23	Control of MAPK signalling: from complexity to what really matters. Oncogene, 2005, 24, 5533-5542.	5.9	175
24	Acetaldehyde Mediates the Synchronization of Sustained Glycolytic Oscillations in Populations of Yeast Cells. FEBS Journal, 1996, 235, 238-241.	0.2	171
25	How enzymes can capture and transmit free energy from an oscillating electric field.. Proceedings of the National Academy of Sciences of the United States of America, 1986, 83, 4734-4738.	7.1	167
26	Compartmentation protects trypanosomes from the dangerous design of glycolysis. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 2087-2092.	7.1	166
27	Metabolic control theory: its role in microbiology and biotechnology. FEMS Microbiology Letters, 1986, 39, 305-320.	1.8	162
28	Control theory of regulatory cascades. Journal of Theoretical Biology, 1991, 153, 255-285.	1.7	159
29	What Controls Glycolysis in Bloodstream Form Trypanosoma brucei?. Journal of Biological Chemistry, 1999, 274, 14551-14559.	3.4	159
30	A Wave of Reactive Oxygen Species (ROS)-Induced ROS Release in a Sea of Excitable Mitochondria. Antioxidants and Redox Signaling, 2006, 8, 1651-1665.	5.4	158
31	Thermodynamic efficiency of microbial growth is low but optimal for maximal growth rate. Proceedings of the National Academy of Sciences of the United States of America, 1983, 80, 305-309.	7.1	152
32	Effects of sequestration on signal transduction cascades. FEBS Journal, 2006, 273, 895-906.	4.7	148
33	Matrix method for determining steps most rate-limiting to metabolic fluxes in biotechnological processes. Biotechnology and Bioengineering, 1987, 30, 101-107.	3.3	147
34	The Signal Transduction Function for Oxidative Phosphorylation Is at Least Second Order in ADP. Journal of Biological Chemistry, 1996, 271, 27995-27998.	3.4	147
35	GlnK, a PII-homologue: structure reveals ATP binding site and indicates how the T-loops may be involved in molecular recognition. Journal of Molecular Biology, 1998, 282, 149-165.	4.2	147
36	Measuring enzyme activities under standardized <i>inâ€ƒvivo</i>â€like conditions for systems biology. FEBS Journal, 2010, 277, 749-760.	4.7	147

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37	Effects of oscillations and energy-driven fluctuations on the dynamics of enzyme catalysis and free-energy transduction. Physical Review A, 1989, 39, 6416-6435.	2.5	144
38	How do enzyme activities control metabolite concentrations?. An additional theorem in the theory of metabolic control. FEBS Journal, 1984, 142, 425-430.	0.2	142
39	Quantification of information transfer via cellular signal transduction pathways. FEBS Letters, 1997, 414, 430-434.	2.8	141
40	Unraveling the complexity of flux regulation: A new method demonstrated for nutrient starvation inSaccharomyces cerevisiae. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2166-2171.	7.1	137
41	Principles behind the multifarious control of signal transduction. FEBS Journal, 2004, 272, 244-258.	4.7	135
42	Quantifying heterogeneity: flow cytometry of bacterial cultures. Antonie Van Leeuwenhoek, 1991, 60, 145-158.	1.7	134
43	Intracellular Glucose Concentration in Derepressed Yeast Cells Consuming Glucose Is High Enough To Reduce the Glucose Transport Rate by 50%. Journal of Bacteriology, 1998, 180, 556-562.	2.2	127
44	Structure and partitioning of bacterial DNA: determined by a balance of compaction and expansion forces?. FEMS Microbiology Letters, 1995, 131, 235-242.	1.8	125
45	How Yeast Cells Synchronize their Glycolytic Oscillations: A Perturbation Analytic Treatment. Biophysical Journal, 2000, 78, 1087-1093.	0.5	125
46	Thermodynamics of growth non-equilibrium thermodynamics of bacterial growth the phenomenological and the Mosaic approach. Biochimica Et Biophysica Acta - Reviews on Bioenergetics, 1982, 683, 181-220.	0.2	124
47	Nitrite Reductase of <i>Nitrosomonas europaea</i> Is Not Essential for Production of Gaseous Nitrogen Oxides and Confers Tolerance to Nitrite. Journal of Bacteriology, 2002, 184, 2557-2560.	2.2	123
48	Emergence and Its Place in Nature: A Case Study of Biochemical Networks. SynthÃ̂se, 2005, 145, 131-164.	1.1	123
49	Compartmentation prevents a lethal turbo-explosion of glycolysis in trypanosomes. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17718-17723.	7.1	123
50	Can free energy be transduced from electric noise?. Proceedings of the National Academy of Sciences of the United States of America, 1987, 84, 434-438.	7.1	120
51	FnrP and NNR of Paracoccus denitrificans are both members of the FNR family of transcriptional activators but have distinct roles in respiratory adaptation in response to oxygen limitation. Molecular Microbiology, 1997, 23, 893-907.	2.5	120
52	Functional Synergism of the Magainins PGLa and Magainin-2 in Escherichia coli, Tumor Cells and Liposomes. FEBS Journal, 1995, 228, 257-264.	0.2	120
53	Transduction of Intracellular and Intercellular Dynamics in Yeast Glycolytic Oscillations. Biophysical Journal, 2000, 78, 1145-1153.	0.5	116
54	Understanding Glucose Transport by the Bacterial Phosphoenolpyruvate:Glycose Phosphotransferase System on the Basis of Kinetic Measurements in Vitro. Journal of Biological Chemistry, 2000, 275, 34909-34921.	3.4	115

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55	A model of yeast glycolysis based on a consistent kinetic characterisation of all its enzymes. FEBS Letters, 2013, 587, 2832-2841.	2.8	113
56	DNA supercoiling depends on the phosphorylation potential in Escherichia coli. Molecular Microbiology, 1996, 20, 351-360.	2.5	111
57	Coordinated Behavior of Mitochondria in Both Space and Time: A Reactive Oxygen Species-Activated Wave of Mitochondrial Depolarization. Biophysical Journal, 2004, 87, 2022-2034.	0.5	111
58	Metabolite profiling of recombinant CHO cells: Designing tailored feeding regimes that enhance recombinant antibody production. Biotechnology and Bioengineering, 2011, 108, 3025-3031.	3.3	110
59	Mutational Analysis of the Nor Gene Cluster which Encodes Nitric-Oxide Reductase from Paracoccus denitrificans. FEBS Journal, 1996, 242, 592-600.	0.2	107
60	Towards building the silicon cell: A modular approach. BioSystems, 2006, 83, 207-216.	2.0	107
61	Modular Response Analysis of Cellular Regulatory Networks. Journal of Theoretical Biology, 2002, 218, 507-520.	1.7	106
62	Modular analysis of the control of complex metabolic pathways. Biophysical Chemistry, 1993, 48, 1-17.	2.8	104
63	Implications of macromolecular crowding for signal transduction and metabolite channeling. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 10547-10552.	7.1	102
64	Metabolic control analysis of glycolysis in trypanosomes as an approach to improve selectivity and effectiveness of drugs. Molecular and Biochemical Parasitology, 2000, 106, 1-10.	1.1	101
65	Recurrent design patterns in the feedback regulation of the mammalian signalling network. Molecular Systems Biology, 2008, 4, 190.	7.2	100
66	Integrated multilaboratory systems biology reveals differences in protein metabolism between two reference yeast strains. Nature Communications, 2010, 1, 145.	12.8	100
67	DNA supercoiling by DNA gyrase. Cell Biophysics, 1988, 12, 157-181.	0.4	99
68	Kinetics of daunorubicin transport by P-glycoprotein of intact cancer cells. FEBS Journal, 1992, 207, 567-579.	0.2	97
69	Metabolic channelling and control of the flux. FEBS Letters, 1993, 320, 71-74.	2.8	97
70	DNA supercoiling inEscherichia coliis under tight and subtle homeostatic control, involving gene-expression and metabolic regulation of both topoisomeraseâ€ƒI and DNA gyrase. FEBS Journal, 2002, 269, 1662-1669.	0.2	96
71	Modular Response Analysis of Cellular Regulatory Networks. Journal of Theoretical Biology, 2002, 218, 507-520.	1.7	95
72	Contribution of glucose transport to the control of the glycolytic flux in Trypanosoma brucei. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 10098-10103.	7.1	94

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73	The genes of the glutamine synthetase adenylylation cascade are not regulated by nitrogen in Escherichia coli. Molecular Microbiology, 1993, 9, 443-457.	2.5	91
74	The two opposing activities of adenylyl transferase reside in distinct homologous domains, with intramolecular signal transduction. EMBO Journal, 1997, 16, 5562-5571.	7.8	89
75	An <i>in vivo</i> control map for the eukaryotic mRNA translation machinery. Molecular Systems Biology, 2013, 9, 635.	7.2	89
76	The use of lac-type promoters in control analysis. FEBS Journal, 1993, 211, 181-191.	0.2	88
77	Testing Biochemistry Revisited: How In Vivo Metabolism Can Be Understood from In Vitro Enzyme Kinetics. PLoS Computational Biology, 2012, 8, e1002483.	3.2	88
78	Tracing the molecular basis of transcriptional dynamics in noisy data by using an experiment-based mathematical model. Nucleic Acids Research, 2015, 43, 153-161.	14.5	88
79	Nitrite and nitric oxide reduction inParacoccus denitrificansis under the control of NNR, a regulatory protein that belongs to the FNR family of transcriptional activators. FEBS Letters, 1995, 360, 151-154.	2.8	84
80	Super life â€“ how and why â€˜cell selectionâ€™ leads to the fastestâ€growing eukaryote. FEBS Journal, 2009, 276, 254-270.	4.7	84
81	Mosaic protonic coupling hypothesis for free energy transduction. FEBS Letters, 1984, 165, 1-5.	2.8	83
82	Bacteriorhodopsin in liposomes. II. Experimental evidence in support of a theoretical model. Biochimica Et Biophysica Acta - Bioenergetics, 1979, 547, 561-582.	1.0	80
83	Sustained oscillations in free-energy state and hexose phosphates in yeast. Yeast, 1996, 12, 731-740.	1.7	80
84	Magainin 2 amide and analogues Antimicrobial activity, membrane depolarization and susceptibility to proteolysis. FEBS Letters, 1989, 249, 219-223.	2.8	78
85	Around the growth phase transition S. cerevisiae's make-up favours sustained oscillations of intracellular metabolites. FEBS Letters, 1993, 318, 80-82.	2.8	78
86	The multidrug-resistance-reverser verapamil interferes with cellular P-glycoprotein-mediated pumping of daunorubicin as a non-competing substrate. FEBS Journal, 1994, 221, 363-373.	0.2	78
87	Signal transduction in bacteria: phospho-neural network(s) inEscherichia coli?. FEMS Microbiology Reviews, 1995, 16, 309-321.	8.6	78
88	Nitrosomonas europaea Expresses a Nitric Oxide Reductase during Nitrification. Journal of Bacteriology, 2004, 186, 4417-4421.	2.2	78
89	Systems Biology: The elements and principles of Life. FEBS Letters, 2009, 583, 3882-3890.	2.8	77
90	Systems biology towards life in silico: mathematics of the control of living cells. Journal of Mathematical Biology, 2009, 58, 7-34.	1.9	77

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91	Metabolic control analysis indicates a change of strategy in the treatment of cancer. Mitochondrion, 2010, 10, 626-639.	3.4	77
92	Nitric Oxide Is a Signal for NNR-Mediated Transcription Activation in <i>Paracoccus denitrificans</i>. Journal of Bacteriology, 1999, 181, 4129-4132.	2.2	77
93	Control and Regulation of Gene Expression. Journal of Biological Chemistry, 2008, 283, 2495-2507.	3.4	76
94	Control of Glycolytic Dynamics by Hexose Transport in Saccharomyces cerevisiae. Biophysical Journal, 2001, 80, 626-634.	0.5	75
95	Noise Management by Molecular Networks. PLoS Computational Biology, 2009, 5, e1000506.	3.2	70
96	Integration of single-cell RNA-seq data into population models to characterize cancer metabolism. PLoS Computational Biology, 2019, 15, e1006733.	3.2	70
97	Control Analysis for Autonomously Oscillating Biochemical Networks. Biophysical Journal, 2002, 82, 99-108.	0.5	69
98	Hierarchical and metabolic regulation of glucose influx in starved. FEMS Yeast Research, 2005, 5, 611-619.	2.3	69
99	Molecular assessment of bacterial vaginosis by Lactobacillus abundance and species diversity. BMC Infectious Diseases, 2016, 16, 180.	2.9	68
100	Identification of Three Early Phases of Cell-Fate Determination during Osteogenic and Adipogenic Differentiation by Transcription Factor Dynamics. Stem Cell Reports, 2017, 8, 947-960.	4.8	66
101	Autoamplification of a Two-Component Regulatory System Results in â€œLearningâ€•Behavior. Journal of Bacteriology, 2001, 183, 4914-4917.	2.2	64
102	Why <i>inÂvivo</i> may not equal <i>inÂvitro</i> â€“ new effectors revealed by measurement of enzymatic activities under the same <i>inÂvivo</i>â€like assay conditions. FEBS Journal, 2012, 279, 4145-4159.	4.7	64
103	A metabolic core model elucidates how enhanced utilization of glucose and glutamine, with enhanced glutamine-dependent lactate production, promotes cancer cell growth: The WarburQ effect. PLoS Computational Biology, 2017, 13, e1005758.	3.2	64
104	Interactions between a new class of eukaryotic antimicrobial agents and isolated rat liver mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 1989, 975, 361-369.	1.0	63
105	Channelling can decrease pool size. FEBS Journal, 1992, 204, 257-266.	0.2	62
106	Product dependence and bifunctionality compromise the ultrasensitivity of signal transduction cascades. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 1170-1175.	7.1	62
107	The multifarious short-term regulation of ammonium assimilation of Escherichia coli: dissection using an in silico replica. FEBS Journal, 2005, 272, 1965-1985.	4.7	62
108	Control analysis of glycolytic oscillations. Biophysical Chemistry, 1996, 62, 15-24.	2.8	61

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109	Building the Cellular Puzzle. Journal of Theoretical Biology, 2001, 208, 261-285.	1.7	60
110	Increased glucose metabolism and ATP level in brain tissue of Huntingtonâ€™s disease transgenic mice. FEBS Journal, 2008, 275, 4740-4755.	4.7	60
111	On the origin of the limited control of mitochondrial respiration by the adenine nucleotide translocator. Archives of Biochemistry and Biophysics, 1987, 257, 154-169.	3.0	59
112	How to Recognize Monofunctional Units in a Metabolic System. Journal of Theoretical Biology, 1996, 179, 213-228.	1.7	58
113	An additional PIIinEscherichia coli: a new regulatory protein in the glutamine synthetase cascade. FEMS Microbiology Letters, 1995, 132, 153-157.	1.8	57
114	Recommendations for terminology and databases for biochemical thermodynamics. Biophysical Chemistry, 2011, 155, 89-103.	2.8	57
115	The sum of the control coefficients of all enzymes on the flux through a group-transfer pathway can be as high as two. FEBS Journal, 1993, 212, 791-799.	0.2	56
116	Yeast cells with a specific cellular make-up and an environment that removes acetaldehyde are prone to sustained glycolytic oscillations. FEBS Letters, 1994, 341, 223-226.	2.8	56
117	Anthracyclines modulate multidrug resistance protein (MRP) mediated organic anion transport. Biochimica Et Biophysica Acta - Biomembranes, 1997, 1326, 12-22.	2.6	56
118	Novel <i>nirK</i> Cluster Genes in <i>Nitrosomonas europaea</i> Are Required for NirK-Dependent Tolerance to Nitrite. Journal of Bacteriology, 2005, 187, 6849-6851.	2.2	56
119	Macromolecular networks and intelligence in microorganisms. Frontiers in Microbiology, 2014, 5, 379.	3.5	55
120	Synchronization of glycolytic oscillations in a yeast cell population. Faraday Discussions, 2002, 120, 261-275.	3.2	53
121	Frequencyâ€“dependent incidence in models of sexually transmitted diseases: portrayal of pairâ€“based transmission and effects of illness on contact behaviour. Proceedings of the Royal Society B: Biological Sciences, 2004, 271, 625-634.	2.6	53
122	Temperature compensation through systems biology. FEBS Journal, 2007, 274, 940-950.	4.7	51
123	Modular response analysis of cellular regulatory networks. Journal of Theoretical Biology, 2002, 218, 507-20.	1.7	51
124	Transcription regulation of the <i>nir</i> gene cluster encoding nitrite reductase of <i>Paracoccus denitrificans</i> involves NNR and NirI, a novel type of membrane protein. Molecular Microbiology, 1999, 34, 24-36.	2.5	50
125	ROS networks: designs, aging, Parkinsonâ€™s disease and precision therapies. Npj Systems Biology and Applications, 2020, 6, 34.	3.0	50
126	Regulation of expression of terminal oxidases in Paracoccus denitrificans. FEBS Journal, 2001, 268, 2486-2497.	0.2	49

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127	Geobacteraceae Community Composition Is Related to Hydrochemistry and Biodegradation in an Iron-Reducing Aquifer Polluted by a Neighboring Landfill. Applied and Environmental Microbiology, 2005, 71, 5983-5991.	3.1	49
128	How Molecular Competition Influences Fluxes in Gene Expression Networks. PLoS ONE, 2011, 6, e28494.	2.5	49
129	Metabolic control of mitochondrial properties by adenine nucleotide translocator determines palmitoyl-CoA effects.. FEBS Journal, 2006, 273, 5288-5302.	4.7	48
130	Multi-omic profiles of human non-alcoholic fatty liver disease tissue highlight heterogenic phenotypes. Scientific Data, 2015, 2, 150068.	5.3	48
131	Enzyme Organization and the Direction of Metabolic Flow: Physicochemical Considerations. Current Topics in Cellular Regulation, 1992, 33, 361-390.	9.6	48
132	Defining control coefficients in non-ideal metabolic pathways. Biophysical Chemistry, 1995, 56, 215-226.	2.8	47
133	Control Analysis of Periodic Phenomena in Biological Systems. Journal of Physical Chemistry B, 1997, 101, 2070-2081.	2.6	47
134	The relative importance of passive and P-glycoprotein mediated anthracycline efflux from multidrug-resistant cells. FEBS Journal, 2000, 267, 649-657.	0.2	47
135	Modular Kinetic Analysis of the Adenine Nucleotide Translocator-Mediated Effects of Palmitoyl-CoA on the Oxidative Phosphorylation in Isolated Rat Liver Mitochondria. Diabetes, 2005, 54, 944-951.	0.6	47
136	Functioning of oxidative phosphorylation in liver mitochondria of high-fat diet fed rats. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2007, 1772, 307-316.	3.8	47
137	AmtB-mediated NH₃transport in prokaryotes must be active and as a consequence regulation of transport by GlnK is mandatory to limit futile cycling of NH4+/NH3. FEBS Letters, 2011, 585, 23-28.	2.8	47
138	Regulation of the Activity of Lactate Dehydrogenases from Four Lactic Acid Bacteria. Journal of Biological Chemistry, 2013, 288, 21295-21306.	3.4	47
139	Synthetic biology and regulatory networks: where metabolic systems biology meets control engineering. Journal of the Royal Society Interface, 2016, 13, 20151046.	3.4	47
140	Magainins affect respiratory control, membrane potential and motility of hamster spermatozoa. FEBS Letters, 1991, 293, 219-223.	2.8	46
141	The potential role of adenosine in the pathophysiology of the insulin resistance syndrome. Atherosclerosis, 2001, 155, 283-290.	0.8	46
142	Regulation and control of compartmentalized glycolysis in bloodstream formTrypanosoma brucei. Journal of Bioenergetics and Biomembranes, 1995, 27, 513-525.	2.3	45
143	DNA supercoiling by gyrase is linked to nucleoid compaction. Molecular Biology Reports, 2002, 29, 79-82.	2.3	45
144	The regulatory strength: How to be precise about regulation and homeostasis. Acta Biotheoretica, 1993, 41, 85-96.	1.5	44

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145	Functional Synergism of the Magainins PGLa and Magainin-2 in Escherichia coli, Tumor Cells and Liposomes. FEBS Journal, 1995, 228, 257-264.	0.2	44
146	Calcium Indirectly Increases the Control Exerted by the Adenine Nucleotide Translocator over 2-Oxoglutarate Oxidation in Rat Heart Mitochondria. Archives of Biochemistry and Biophysics, 1995, 324, 130-134.	3.0	44
147	Restriction point control of the mammalian cell cycle via the cyclin E/Cdk2:p27 complex. FEBS Journal, 2010, 277, 357-367.	4.7	44
148	A domino effect in drug action: from metabolic assault towards parasite differentiation. Molecular Microbiology, 2011, 79, 94-108.	2.5	44
149	Control of mitochondrial respiration. Biochemical Society Transactions, 1983, 11, 40-43.	3.4	43
150	Magainin Oligomers Reversibly Dissipate .DELTA..mu.H+ in Cytochrome Oxidase Liposomes. Biochemistry, 1994, 33, 4562-4570.	2.5	43
151	Control of frequency and amplitudes is shared by all enzymes in three models for yeast glycolytic oscillations. Biochimica Et Biophysica Acta - Bioenergetics, 1996, 1275, 204-212.	1.0	43
152	Bacteriorhodopsin in liposomes. I. A description using irreversible thermodynamics. Biochimica Et Biophysica Acta - Bioenergetics, 1979, 547, 544-560.	1.0	42
153	Regulation of oxidative phosphorylation: The flexible respiratory network ofParacoccus denitrificans. Journal of Bioenergetics and Biomembranes, 1995, 27, 499-512.	2.3	42
154	Branched-Chain Î±-Keto Acid Catabolism via the Gene Products of the <i>bkd</i> Operon in <i>Enterococcus faecalis</i> : a New, Secreted Metabolite Serving as a Temporary Redox Sink. Journal of Bacteriology, 2000, 182, 3239-3246.	2.2	42
155	Metabolite profiling of CHO cells: Molecular reflections of bioprocessing effectiveness. Biotechnology Journal, 2015, 10, 1434-1445.	3.5	42
156	Targeting pathogen metabolism without collateral damage to the host. Scientific Reports, 2017, 7, 40406.	3.3	42
157	A probabilistic approach to identify putative drug targets in biochemical networks. Journal of the Royal Society Interface, 2011, 8, 880-895.	3.4	41
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159	The extent to which ATP demand controls the glycolytic flux depends strongly on the organism and conditions for growth. Molecular Biology Reports, 2002, 29, 41-45.	2.3	40
160	Systems Pharmacology: An opinion on how to turn the impossible into grand challenges. Drug Discovery Today: Technologies, 2015, 15, 23-31.	4.0	40
161	Glucose and the ATP paradox in yeast. Biochemical Journal, 2000, 352, 593-599.	3.7	39
162	The NosX and NirX Proteins of <i>Paracoccus denitrificans</i> Are Functional Homologues: Their Role in Maturation of Nitrous Oxide Reductase. Journal of Bacteriology, 2000, 182, 5211-5217.	2.2	39

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163	Why the Phosphotransferase System of Escherichia coli Escapes Diffusion Limitation. Biophysical Journal, 2003, 85, 612-622.	0.5	39
164	How <i>Geobacteraceae</i> may dominate subsurface biodegradation: physiology of <i>Geobacter metallireducens</i> in slowâ€growth habitatâ€simulating retentostats. Environmental Microbiology, 2009, 11, 2425-2433.	3.8	39
165	Non-equilibrium thermodynamics of light absorption. Journal of Physics A, 1999, 32, 301-311.	1.6	38
166	The Silicon Cell, Not Dead but Live!. Metabolic Engineering, 2001, 3, 207-210.	7.0	38
167	Control of spatially heterogeneous and time-varying cellular reaction networks: a new summation law. Journal of Theoretical Biology, 2003, 225, 477-487.	1.7	38
168	STRENDA DB: enabling the validation and sharing of enzyme kinetics data. FEBS Journal, 2018, 285, 2193-2204.	4.7	38
169	On the expected relationship between Gibbs energy of ATP hydrolysis and muscle performance. Biophysical Chemistry, 1995, 54, 137-142.	2.8	37
170	Metabolic design: How to engineer a living cell to desired metabolite concentrations and fluxes. Biotechnology and Bioengineering, 1998, 59, 239-247.	3.3	36
171	Putting Intentions into Cell Biochemistry: An Artificial Intelligence Perspective. Journal of Theoretical Biology, 2002, 214, 105-134.	1.7	36
172	Dupuytren's: a systems biology disease. Arthritis Research and Therapy, 2011, 13, 238.	3.5	36
173	â€˜Channelledâ€™ pathways can be more sensitive to specific regulatory signals. FEBS Letters, 1993, 320, 75-78.	2.8	35
174	Getting to the inside of cells using metabolic control analysis. Biophysical Chemistry, 1994, 50, 273-283.	2.8	35
175	Metabolic control by pump slippage and proton leakage in â€˜delocalizedâ€™ and more localized chemiosmotic energy-coupling schemes. Biochemical Society Transactions, 1983, 11, 81-85.	3.4	34
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177	Linear relations between proton current and pH gradient in bacteriorhodopsin liposomes. Biochemistry, 1981, 20, 5114-5123.	2.5	33
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