Douglas Kell

List of Publications by Year
in descending order

563 papers	50,261 citations	1370 108 h-index	2381 198 g-index
633 all docs	633 docs citations	633 times ranked	41146 citing authors

#	Article	IF	Citations
1	Procedures for large-scale metabolic profiling of serum and plasma using gas chromatography and liquid chromatography coupled to mass spectrometry. Nature Protocols, 2011, 6, 1060-1083.	5.5	2,236
2	Metabolomics by numbers: acquiring and understanding global metabolite data. Trends in Biotechnology, 2004, 22, 245-252.	4.9	1,156
3	Oscillations in NF-ÂB Signaling Control the Dynamics of Gene Expression. Science, 2004, 306, 704-708.	6.0	1,109
4	Systematic functional analysis of the yeast genome. Trends in Biotechnology, 1998, 16, 373-378.	4.9	1,059
5	A functional genomics strategy that uses metabolome data to reveal the phenotype of silent mutations. Nature Biotechnology, 2001, 19, 45-50.	9.4	948
6	A community-driven global reconstruction of human metabolism. Nature Biotechnology, 2013, 31, 419-425.	9.4	920
7	The Systems Biology Graphical Notation. Nature Biotechnology, 2009, 27, 735-741.	9.4	828
8	Computational cluster validation in post-genomic data analysis. Bioinformatics, 2005, 21, 3201-3212.	1.8	763
9	The passive electrical properties of biological systems: their significance in physiology, biophysics and biotechnology. Physics in Medicine and Biology, 1987, 32, 933-970.	1.6	704
10	Flow cytometry and cell sorting of heterogeneous microbial populations: the importance of single-cell analyses. Microbiological Reviews, 1996, 60, 641-696.	10.1	700
11	Statistical strategies for avoiding false discoveries in metabolomics and related experiments. Metabolomics, 2007, 2, 171-196.	1.4	658
12	Non-linear optimization of biochemical pathways: applications to metabolic engineering and parameter estimation. Bioinformatics, 1998, 14, 869-883.	1.8	619
13	A consensus yeast metabolic network reconstruction obtained from a community approach to systems biology. Nature Biotechnology, 2008, 26, 1155-1160.	9.4	530
14	Pulsatile Stimulation Determines Timing and Specificity of NF-ÎºB-Dependent Transcription. Science, 2009, 324, 242-246.	6.0	510
15	Viability and activity in readily culturable bacteria: a review and discussion of the practical issues. Antonie Van Leeuwenhoek, 1998, 73, 169-187.	0.7	500
16	High-throughput classification of yeast mutants for functional genomics using metabolic footprinting. Nature Biotechnology, 2003, 21, 692-696.	9.4	500
17	Flow cytometry and cell sorting of heterogeneous microbial populations: the importance of single-cell analyses.. Microbiological Reviews, 1996, 60, 641-696.	10.1	490
18	Functional genomic hypothesis generation and experimentation by a robot scientist. Nature, 2004, 427, 247-252.	13.7	481

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19	Metabolomics and systems biology: making sense of the soup. Current Opinion in Microbiology, 2004, 7, 296-307.	2.3	472
20	Here is the evidence, now what is the hypothesis? The complementary roles of inductive and hypothesis-driven science in the post-genomic era. BioEssays, 2004, 26, 99-105.	1.2	451
21	Development of a Robust and Repeatable UPLCâ^MS Method for the Long-Term Metabolomic Study of Human Serum. Analytical Chemistry, 2009, 81, 1357-1364.	3.2	447
22	Serum ferritin is an important inflammatory disease marker, as it is mainly a leakage product from damaged cells. Metallomics, 2014, 6, 748-773.	1.0	442
23	The inhibition by CO_2 of the growth and metabolism of microâ€organisms. Journal of Applied Bacteriology, 1989, 67, 109-136.	1.1	429
24	Microbes and Alzheimerâ€™s Disease. Journal of Alzheimer's Disease, 2016, 51, 979-984.	1.2	426
25	Iron behaving badly: inappropriate iron chelation as a major contributor to the aetiology of vascular and other progressive inflammatory and degenerative diseases. BMC Medical Genomics, 2009, 2, 2.	0.7	421
26	Carrier-mediated cellular uptake of pharmaceutical drugs: an exception or the rule?. Nature Reviews Drug Discovery, 2008, 7, 205-220.	21.5	413
27	A bacterial cytokine. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 8916-8921.	3.3	405
28	Metabolic footprinting and systems biology: the medium is the message. Nature Reviews Microbiology, 2005, 3, 557-565.	13.6	373
29	Hierarchical metabolomics demonstrates substantial compositional similarity between genetically modified and conventional potato crops. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14458-14462.	3.3	367
30	The dormant blood microbiome in chronic, inflammatory diseases. FEMS Microbiology Reviews, 2015, 39, 567-591.	3.9	362
31	Rapid identification of urinary tract infection bacteria using hyperspectral whole-organism fingerprinting and artificial neural networks. Microbiology (United Kingdom), 1998, 144, 1157-1170.	0.7	361
32	Proposed minimum reporting standards for data analysis in metabolomics. Metabolomics, 2007, 3, 231-241.	1.4	361
33	Towards a unifying, systems biology understanding of large-scale cellular death and destruction caused by poorly liganded iron: Parkinsonâ€™s, Huntingtonâ€™s, Alzheimerâ€™s, prions, bactericides, chemical toxicology and others as examples. Archives of Toxicology, 2010, 84, 825-889.	1.9	330
34	On the functional proton current pathway of electron transport phosphorylation. Biochimica Et Biophysica Acta - Reviews on Bioenergetics, 1979, 549, 55-99.	0.8	328
35	Synthetic biology for the directed evolution of protein biocatalysts: navigating sequence space intelligently. Chemical Society Reviews, 2015, 44, 1172-1239.	18.7	316
36	Breeding crop plants with deep roots: their role in sustainable carbon, nutrient and water sequestration. Annals of Botany, 2011, 108, 407-418.	1.4	313

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37	Detection of the Dipicolinic Acid Biomarker inBacillusSpores Using Curie-Point Pyrolysis Mass Spectrometry and Fourier Transform Infrared Spectroscopy. Analytical Chemistry, 2000, 72, 119-127.	3.2	292
38	Dormancy in non-sporulating bacteria. FEMS Microbiology Letters, 1993, 104, 271-286.	0.7	286
39	A proposed framework for the description of plant metabolomics experiments and their results. Nature Biotechnology, 2004, 22, 1601-1606.	9.4	283
40	Rapid and Quantitative Detection of the Microbial Spoilage of Meat by Fourier Transform Infrared Spectroscopy and Machine Learning. Applied and Environmental Microbiology, 2002, 68, 2822-2828.	1.4	281
41	Text mining and its potential applications in systems biology. Trends in Biotechnology, 2006, 24, 571-579.	4.9	281
42	Persistent clotting protein pathology in Long COVID/Post-Acute Sequelae of COVID-19 (PASC) is accompanied by increased levels of antiplasmin. Cardiovascular Diabetology, 2021, 20, 172.	2.7	271
43	Systems biology, metabolic modelling and metabolomics in drug discovery and development. Drug Discovery Today, 2006, 11, 1085-1092.	3.2	262
44	Genetic algorithms as a method for variable selection in multiple linear regression and partial least squares regression, with applications to pyrolysis mass spectrometry. Analytica Chimica Acta, 1997, 348, 71-86.	2.6	259
45	Rapid assessment of bacterial viability and vitality by rhodamine 123 and flow cytometry. Journal of Applied Bacteriology, 1992, 72, 410-422.	1.1	256
46	A family of autocrine growth factors in Mycobacterium tuberculosis. Molecular Microbiology, 2002, 46, 623-635.	1.2	254
47	The Biology of Lactoferrin, an Iron-Binding Protein That Can Help Defend Against Viruses and Bacteria. Frontiers in Immunology, 2020, 11, 1221.	2.2	251
48	A systematic approach to modeling, capturing, and disseminating proteomics experimental data. Nature Biotechnology, 2003, 21, 247-254.	9.4	246
49	Controlled vocabularies and semantics in systems biology. Molecular Systems Biology, 2011, 7, 543.	3.2	246
50	Multiobjective Optimization in Bioinformatics and Computational Biology. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2007, 4, 279-292.	1.9	243
51	Recon 2.2: from reconstruction to model of human metabolism. Metabolomics, 2016, 12, 109.	1.4	243
52	Dielectric permittivity of microbial suspensions at radio frequencies: a novel method for the real-time estimation of microbial biomass. Enzyme and Microbial Technology, 1987, 9, 181-186.	1.6	242
53	Robust Early Pregnancy Prediction of Later Preeclampsia Using Metabolomic Biomarkers. Hypertension, 2010, 56, 741-749.	1.3	242
54	Mass spectrometry tools and metabolite-specific databases for molecular identification in metabolomics. Analyst, The, 2009, 134, 1322.	1.7	240

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55	Dormancy in Stationary-Phase Cultures of <i>Micrococcus luteus</i> : Flow Cytometric Analysis of Starvation and Resuscitation. Applied and Environmental Microbiology, 1993, 59, 3187-3196.	1.4	239
56	Growth control of the eukaryote cell: a systems biology study in yeast. Journal of Biology, 2007, 6, 4.	2.7	234
57	An introduction to wavelet transforms for chemometricians: A time-frequency approach. Chemometrics and Intelligent Laboratory Systems, 1997, 37, 215-239.	1.8	219
58	Large-scale sequestration of atmospheric carbon via plant roots in natural and agricultural ecosystems: why and how. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 1589-1597.	1.8	217
59	Molecular phenotyping of a UK population: defining the human serum metabolome. Metabolomics, 2015, 11, 9-26.	1.4	202
60	A minimal hypothesis for membrane-linked free-energy transduction. Biochimica Et Biophysica Acta - Reviews on Bioenergetics, 1984, 768, 257-292.	0.8	199
61	Muralytic activity of Micrococcus luteus Rpf and its relationship to physiological activity in promoting bacterial growth and resuscitation. Molecular Microbiology, 2006, 59, 84-98.	1.2	193
62	Rapid identification of Streptococcus and Enterococcus species using diffuse reflectance-absorbance Fourier transform infrared spectroscopy and artificial neural networks. FEMS Microbiology Letters, 1996, 140, 233-239.	0.7	187
63	<scp>SBML</scp> Level 3: an extensible format for the exchange and reuse of biological models. Molecular Systems Biology, 2020, 16, e9110.	3.2	178
64	The estimation of microbial biomass. Biosensors, 1985, 1, 17-84.	2.0	175
65	Huntington disease patients and transgenic mice have similar pro-catabolic serum metabolite profiles. Brain, 2006, 129, 877-886.	3.7	175
66	Automated workflows for accurate mass-based putative metabolite identification in LC/MS-derived metabolomic datasets. Bioinformatics, 2011, 27, 1108-1112.	1.8	173
67	Formation and resuscitation of â€˜non-culturableâ€™ cells of Rhodococcus rhodochrous and Mycobacterium tuberculosis in prolonged stationary phase. Microbiology (United Kingdom), 2002, 148, 1581-1591.	0.7	173
68	Development and Performance of a Gas Chromatographyâˆ'Time-of-Flight Mass Spectrometry Analysis for Large-Scale Nontargeted Metabolomic Studies of Human Serum. Analytical Chemistry, 2009, 81, 7038-7046.	3.2	168
69	Membrane transporter engineering in industrial biotechnology and whole cell biocatalysis. Trends in Biotechnology, 2015, 33, 237-246.	4.9	167
70	Metabolic control theory: its role in microbiology and biotechnology. FEMS Microbiology Letters, 1986, 39, 305-320.	0.7	162
71	Metabolic profiling of serum using Ultra Performance Liquid Chromatography and the LTQ-Orbitrap mass spectrometry system. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2008, 871, 288-298.	1.2	161
72	Event extraction for systems biology by text mining the literature. Trends in Biotechnology, 2010, 28, 381-390.	4.9	160

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73	Pharmaceutical drug transport: the issues and the implications that it is essentially carrier-mediated only. Drug Discovery Today, 2011, 16, 704-714.	3.2	160
74	An automated Design-Build-Test-Learn pipeline for enhanced microbial production of fine chemicals. Communications Biology, 2018, 1, 66.	2.0	159
75	The rpf gene of Micrococcus luteus encodes an essential secreted growth factor. Molecular Microbiology, 2002, 46, 611-621.	1.2	157
76	Wavelet Denoising of Infrared Spectra. Analyst, The, 1997, 122, 645-652.	1.7	154
77	A metabolome pipeline: from concept to data to knowledge. Metabolomics, 2005, 1, 39-51.	1.4	152
78	Serum metabolomics reveals many novel metabolic markers of heart failure, including pseudouridine and 2-oxoglutarate. Metabolomics, 2007, 3, 413-426.	1.4	150
79	Matrix method for determining steps most rate-limiting to metabolic fluxes in biotechnological processes. Biotechnology and Bioengineering, 1987, 30, 101-107.	1.7	147
80	Path2Models: large-scale generation of computational models from biochemical pathway maps. BMC Systems Biology, 2013, 7, 116.	3.0	145
81	Metabolomics, modelling and machine learning in systems biology - towards an understanding of the languages of cells. Delivered on 3 July 2005 at the 30th FEBS Congress and 9th IUBMB conference in Budapest. FEBS Journal, 2006, 273, 873-894.	2.2	142
82	Metabolomics and systems pharmacology: why and how to model the human metabolic network for drug discovery. Drug Discovery Today, 2014, 19, 171-182.	3.2	140
83	On the translocation of bacteria and their lipopolysaccharides between blood and peripheral locations in chronic, inflammatory diseases: the central roles of LPS and LPS-induced cell death. Integrative Biology (United Kingdom), 2015, 7, 1339-1377.	0.6	140
84	Closed-Loop, Multiobjective Optimization of Analytical Instrumentation: Gas Chromatography/Time-of-Flight Mass Spectrometry of the Metabolomes of Human Serum and of Yeast Fermentations. Analytical Chemistry, 2005, 77, 290-303.	3.2	136
85	How drugs get into cells: tested and testable predictions to help discriminate between transporter-mediated uptake and lipoidal bilayer diffusion. Frontiers in Pharmacology, 2014, 5, 231.	1.6	136
86	Covid-19: The Rollercoaster of Fibrin(Ogen), D-Dimer, Von Willebrand Factor, P-Selectin and Their Interactions with Endothelial Cells, Platelets and Erythrocytes. International Journal of Molecular Sciences, 2020, 21, 5168.	1.8	135
87	Quantifying heterogeneity: flow cytometry of bacterial cultures. Antonie Van Leeuwenhoek, 1991, 60, 145-158.	0.7	134
88	The promiscuous binding of pharmaceutical drugs and their transporter-mediated uptake into cells: what we (need to) know and how we can do so. Drug Discovery Today, 2013, 18, 218-239.	3.2	130
89	Comparative evaluation of software for deconvolution of metabolomics data based on GC-TOF-MS. TrAC - Trends in Analytical Chemistry, 2008, 27, 215-227.	5.8	129
90	Influence of Viable Cells on the Resuscitation of Dormant Cells in *Micrococcus luteus* Cultures Held in an Extended Stationary Phase: the Population Effect. Applied and Environmental Microbiology, 1994, 60, 3284-3291.	1.4	129

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91	Metabolic profiling using direct infusion electrospray ionisation mass spectrometry for the characterisation of olive oils. Analyst, The, 2002, 127, 1457-1462.	1.7	127
92	Diagnostic morphology: biophysical indicators for iron-driven inflammatory diseases. Integrative Biology (United Kingdom), 2014, 6, 486-510.	0.6	127
93	On the permeability to weak acids and bases of the cytoplasmic membrane of Clostridiumpasteurianum. Biochemical and Biophysical Research Communications, 1981, 99, 81-88.	1.0	126
94	Improving metabolic flux predictions using absolute gene expression data. BMC Systems Biology, 2012, 6, 73.	3.0	126
95	A central role for amyloid fibrin microclots in long COVID/PASC: origins and therapeutic implications. Biochemical Journal, 2022, 479, 537-559.	1.7	126
96	Real-time monitoring of cellular biomass: Methods and applications. TrAC - Trends in Analytical Chemistry, 1990, 9, 190-194.	5.8	125
97	Primary and secondary metabolism, and post-translational protein modifications, as portrayed by proteomic analysis of Streptomyces coelicolor. Molecular Microbiology, 2002, 46, 917-932.	1.2	125
98	Insights into the behaviour of systems biology models from dynamic sensitivity and identifiability analysis: a case study of an NF-κB signalling pathway. Molecular BioSystems, 2006, 2, 640-649.	2.9	124
99	The biology of ergothioneine, an antioxidant nutraceutical. Nutrition Research Reviews, 2020, 33, 190-217.	2.1	122
100	Sensitivity analysis of parameters controlling oscillatory signalling in the NF-κB pathway: the roles of IKK and IκBα. IET Systems Biology, 2004, 1, 93-103.	2.0	121
101	Rapid assessment of the adulteration of virgin olive oils by other seed oils using pyrolysis mass spectrometry and artificial neural networks. Journal of the Science of Food and Agriculture, 1993, 63, 297-307.	1.7	120
102	Do bacteria need to communicate with each other for growth?. Trends in Microbiology, 1996, 4, 237-242.	3.5	120
103	Optimal construction of a fast and accurate polarisable water potential based on multipole moments trained by machine learning. Physical Chemistry Chemical Physics, 2009, 11, 6365.	1.3	119
104	Bacterial dormancy and culturability: the role of autocrine growth factors Commentary. Current Opinion in Microbiology, 2000, 3, 238-243.	2.3	118
105	A GC-TOF-MS study of the stability of serum and urine metabolomes during the UK Biobank sample collection and preparation protocols. International Journal of Epidemiology, 2008, 37, i23-i30.	0.9	118
106	The Cytochrome P450 Complement (CYPome) of Streptomyces coelicolor A3(2). Journal of Biological Chemistry, 2002, 277, 24000-24005.	1.6	117
107	'Metabolite-likeness' as a criterion in the design and selection of pharmaceutical drug libraries. Drug Discovery Today, 2009, 14, 31-40.	3.2	117
108	Defrosting the Digital Library: Bibliographic Tools for the Next Generation Web. PLoS Computational Biology, 2008, 4, e1000204.	1.5	116

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109	Solvent Selection for Whole Cell Biotransformations in Organic Media. Critical Reviews in Biotechnology, 1995, 15, 139-177.	5.1	114
110	A model of yeast glycolysis based on a consistent kinetic characterisation of all its enzymes. FEBS Letters, 2013, 587, 2832-2841.	1.3	113
111	Pyrolysis mass spectrometry and its applications in biotechnology. Current Opinion in Biotechnology, 1996, 7, 20-28.	3.3	112
112	Functional Genomics via Metabolic Footprinting: Monitoring Metabolite Secretion byEscherichia coliTryptophan Metabolism Mutants Using FTâ€"IR and Direct Injection Electrospray Mass Spectrometry. Comparative and Functional Genomics, 2003, 4, 376-391.	2.0	110
113	Novel biomarkers for pre-eclampsia detected using metabolomics and machine learning. Metabolomics, 2005, 1, 227-234.	1.4	110
114	Variable Selection in Discriminant Partial Least-Squares Analysis. Analytical Chemistry, 1998, 70, 4126-4133.	3.2	109
115	Estimation of dormantMicrococcus luteuscells by penicillin lysis and by resuscitation in cell-free spent culture medium at high dilution. FEMS Microbiology Letters, 1994, 115, 347-352.	0.7	107
116	SARS-CoV-2 spike protein S1 induces fibrin(ogen) resistant to fibrinolysis: implications for microclot formation in COVID-19. Bioscience Reports, 2021, 41, .	1.1	104
117	Metabolic footprinting as a tool for discriminating between brewing yeasts. Yeast, 2007, 24, 667-679.	0.8	103
118	Dielectric properties of human blood and erythrocytes at radio frequencies (0.2?10 MHz); dependence on cell volume fraction and medium composition. European Biophysics Journal, 1994, 23, 207-215.	1.2	102
119	Information-theoretic sensitivity analysis: a general method for credit assignment in complex networks. Journal of the Royal Society Interface, 2008, 5, 223-235.	1.5	101
120	Metabolic Profiling Uncovers a Phenotypic Signature of Small for Gestational Age in Early Pregnancy. Journal of Proteome Research, 2011, 10, 3660-3673.	1.8	99
121	The use of 5-cyano-2,3-ditolyl tetrazolium chloride and flow cytometry for the visualisation of respiratory activity in individual cells of Micrococcus luteus. Journal of Microbiological Methods, 1993, 17, 115-122.	0.7	98
122	Variable selection in wavelet regression models. Analytica Chimica Acta, 1998, 368, 29-44.	2.6	98
123	Flow-injection electrospray ionization mass spectrometry of crude cell extracts for high-throughput bacterial identification. Journal of the American Society for Mass Spectrometry, 2002, 13, 118-128.	1.2	97
124	Discrimination of the variety and region of origin of extra virgin olive oils using 13C NMR and multivariate calibration with variable reduction. Analytica Chimica Acta, 1997, 348, 357-374.	2.6	96
125	Array-based evolution of DNA aptamers allows modelling of an explicit sequence-fitness landscape. Nucleic Acids Research, 2009, 37, e6-e6.	6.5	96
126	Further developments towards a genome-scale metabolic model of yeast. BMC Systems Biology, 2010, 4, 145.	3.0	95

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127	Finding novel pharmaceuticals in the systems biology era using multiple effective drug targets, phenotypic screening and knowledge of transporters: where drug discovery went wrong and how to fix it. FEBS Journal, 2013, 280, 5957-5980.	2.2	95
128	The metabolome 18 years on: a concept comes of age. Metabolomics, 2016, 12, 148.	1.4	95
129	Rapid and Quantitative Analysis of the Pyrolysis Mass Spectra of Complex Binary and Tertiary Mixtures Using Multivariate Calibration and Artificial Neural Networks. Analytical Chemistry, 1994, 66, 1070-1085.	3.2	94
130	Closed-Loop, Multiobjective Optimization of Two-Dimensional Gas Chromatography/Mass Spectrometry for Serum Metabolomics. Analytical Chemistry, 2007, 79, 464-476.	3.2	94
131	Discrimination of Aerobic Endospore-forming Bacteria via Electrospray-Ionization Mass Spectrometry of Whole Cell Suspensions. Analytical Chemistry, 2001, 73, 4134-4144.	3.2	93
132	Identification and characterization of high-flux-control genes of yeast through competition analyses in continuous cultures. Nature Genetics, 2008, 40, 113-117.	9.4	93
133	No effects without causes: the Iron Dysregulation and Dormant Microbes hypothesis for chronic, inflammatory diseases. Biological Reviews, 2018, 93, 1518-1557.	4.7	92
134	Rapid identification using pyrolysis mass spectrometry and artificial neural networks of <i>Propionibacterium acnes</i> isolated from dogs. Journal of Applied Bacteriology, 1994, 76, 124-134.	1.1	91
135	Schemes of flux control in a model ofSaccharomyces cerevisiaeglycolysis. FEBS Journal, 2002, 269, 3894-3904.	0.2	91
136	Genomic Computing. Explanatory Analysis of Plant Expression Profiling Data Using Machine Learning. Plant Physiology, 2001, 126, 943-951.	2.3	89
137	Adoption of the transiently non-culturable state â€" a bacterial survival strategy?. Advances in Microbial Physiology, 2003, 47, 65-129.	1.0	89
138	GMP â€" good modelling practice: an essential component of good manufacturing practice. Trends in Biotechnology, 1995, 13, 481-492.	4.9	88
139	Pheromones, social behaviour and the functions of secondary metabolism in bacteria. Trends in Ecology and Evolution, 1995, 10, 126-129.	4.2	87
140	On-Line, Real-Time Measurements of Cellular Biomass using Dielectric Spectroscopy. Biotechnology and Genetic Engineering Reviews, 2000, 17, 3-36.	2.4	87
141	Bacterial Dysbiosis and Translocation in Psoriasis Vulgaris. Frontiers in Cellular and Infection Microbiology, 2019, 9, 7.	1.8	86
142	Something from nothingâ€ƒâˆ'â€ƒbridging the gap between constraintâ€‘based and kinetic modelling. FEBS Journal, 2007, 274, 5576-5585.	2.2	84
143	Detection and Identification of Novel Metabolomic Biomarkers in Preeclampsia. Reproductive Sciences, 2008, 15, 591-597.	1.1	84
144	Eryptosis as a marker of Parkinson's disease. Aging, 2014, 6, 788-819.	1.4	84

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145	A 'rule of 0.5' for the metabolite-likeness of approved pharmaceutical drugs. Metabolomics, 2015, 11, 323-339.	1.4	84
146	Mosaic protonic coupling hypothesis for free energy transduction. FEBS Letters, 1984, 165, 1-5.	1.3	83
147	Neural networks and olive oil. Nature, 1992, 359, 594-594.	13.7	83
148	Diffuse reflectance absorbance spectroscopy taking in chemometrics (DRASTIC). A hyperspectral FT-IR-based approach to rapid screening for metabolite overproduction. Analytica Chimica Acta, 1997, 348, 273-282.	2.6	82
149	On the nonlinear dielectric properties of biological systems. Bioelectrochemistry, 1990, 24, 83-100.	1.0	81
150	Noninvasive, On-Line Monitoring of the Biotransformation by Yeast of Glucose to Ethanol Using Dispersive Raman Spectroscopy and Chemometrics. Applied Spectroscopy, 1999, 53, 1419-1428.	1.2	81
151	Implications of the Dominant Role of Transporters in Drug Uptake by Cells (Supplementary Material). Current Topics in Medicinal Chemistry, 2009, 9, 163-181.	1.0	81
152	Monitoring of complex industrial bioprocesses for metabolite concentrations using modern spectroscopies and machine learning: Application to gibberellic acid production. Biotechnology and Bioengineering, 2002, 78, 527-538.	1.7	79
153	On the optimization of classes for the assignment of unidentified reading frames in functional genomics programmes: the need for machine learning. Trends in Biotechnology, 2000, 18, 93-98.	4.9	78
154	Changes in the Metabolic Footprint of Placental Explant-Conditioned Culture Medium Identifies Metabolic Disturbances Related to Hypoxia and Pre-Eclampsia. Placenta, 2009, 30, 974-980.	0.7	76
155	Parkinson's Disease: A Systemic Inflammatory Disease Accompanied by Bacterial Inflammagens. Frontiers in Aging Neuroscience, 2019, 11, 210.	1.7	76
156	Classification of pyrolysis mass spectra by fuzzy multivariate rule induction-comparison with regression, K-nearest neighbour, neural and decision-tree methods. Analytica Chimica Acta, 1997, 348, 389-407.	2.6	75
157	Selenzyme: enzyme selection tool for pathway design. Bioinformatics, 2018, 34, 2153-2154.	1.8	75
158	Acute induction of anomalous and amyloidogenic blood clotting by molecular amplification of highly substoichiometric levels of bacterial lipopolysaccharide. Journal of the Royal Society Interface, 2016, 13, 20160539.	1.5	74
159	Viscoelastic and ultrastructural characteristics of whole blood and plasma in Alzheimer-type dementia, and the possible role of bacterial lipopolysaccharides (LPS). Oncotarget, 2015, 6, 35284-35303.	0.8	74
160	Oscillatory, stochastic and chaotic growth rate fluctuations in permittistatically controlled yeast cultures. BioSystems, 1996, 39, 43-61.	0.9	73
161	Discrimination of Modes of Action of Antifungal Substances by Use of Metabolic Footprinting. Applied and Environmental Microbiology, 2004, 70, 6157-6165.	1.4	73
162	The simultaneous occurrence of both hypercoagulability and hypofibrinolysis in blood and serum during systemic inflammation, and the roles of iron and fibrin(ogen). Integrative Biology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5	0.6	73

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163	On resuscitation from the dormant state of Micrococcus luteus. Antonie Van Leeuwenhoek, 1998, 73, 237-243.	0.7	72
164	Poorly controlled type 2 diabetes is accompanied by significant morphological and ultrastructural changes in both erythrocytes and in thrombin-generated fibrin: implications for diagnostics. Cardiovascular Diabetology, 2015, 14, 30.	2.7	72
165	Major involvement of bacterial components in rheumatoid arthritis and its accompanying oxidative stress, systemic inflammation and hypercoagulability. Experimental Biology and Medicine, 2017, 242, 355-373.	1.1	72
166	The protonmotive force in bovine heart submitochondrial particles. Magnitude, sites of generation and comparison with the phosphorylation potential. Biochemical Journal, 1978, 174, 237-256.	1.7	71
167	Serum amyloid A binds to fibrin(ogen), promoting fibrin amyloid formation. Scientific Reports, 2019, 9, 3102.	1.6	71
168	Absolute Quantification of the Glycolytic Pathway in Yeast:. Molecular and Cellular Proteomics, 2011, 10, M111.007633.	2.5	70
169	Erythrocyte, Platelet, Serum Ferritin, and P-Selectin Pathophysiology Implicated in Severe Hypercoagulation and Vascular Complications in COVID-19. International Journal of Molecular Sciences, 2020, 21, 8234.	1.8	70
170	Culturability ofMycobacterium tuberculosiscells isolated from murine macrophages: a bacterial growth factor promotes recovery. FEMS Immunology and Medical Microbiology, 2000, 29, 233-240.	2.7	69
171	The permittistat: a novel type of turbidostat. Journal of General Microbiology, 1991, 137, 735-743.	2.3	68
172	The Role of Lipopolysaccharide-Induced Cell Signalling in Chronic Inflammation. Chronic Stress, 2022, 6, 247054702210763.	1.7	68
173	The protonmotive force in phosphorylating membrane vesicles from Paracoccus denitrificans. Magnitude, sites of generation and comparison with the phosphorylation potential. Biochemical Journal, 1978, 174, 257-266.	1.7	67
174	Dielectric Spectroscopy and Membrane Organisation. Journal of Bioelectricity, 1985, 4, 317-348.	0.7	67
175	Correction of Mass Spectral Drift Using Artificial Neural Networks. Analytical Chemistry, 1996, 68, 271-280.	3.2	67
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