Wei-Shou Hu

List of Publications by Year
in descending order

243	10,597	23544 58	53190 85
papers	citations	h-index	g-index

264	264	264	7543
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multipotent adult progenitor cells from bone marrow differentiate into functional hepatocyte-like cells. Journal of Clinical Investigation, 2002, 109, 1291-1302.	3.9	444
2	Structural Polarity and Functional Bile Canaliculi in Rat Hepatocyte Spheroids. Experimental Cell Research, 2002, 274, 56-67.	1.2	214
3	Evaluation of a hepatocyte-entrapment hollow fiber bioreactor: A potential bioartificial liver. Biotechnology and Bioengineering, 1993, 41, 194-203.	1.7	183
4	Multiple steady states with distinct cellular metabolism in continuous culture of mammalian cells. Biotechnology and Bioengineering, 2000, 67, 25-34.	1.7	167
5	High viable cell concentration fed-batch cultures of hybridoma cells through on-line nutrient feeding. Biotechnology and Bioengineering, 1995, 46, 579-587.	1.7	161
6	Micropatterning gradients and controlling surface densities of photoactivatable biomolecules on self-assembled monolayers of oligo(ethylene glycol) alkanethiolates. Chemistry and Biology, 1997, 4, 731-737.	6.2	156
7	Growth cones turn and migrate up an immobilized gradient of the laminin IKVAV peptide. Journal of Neurobiology, 2005, 62, 134-147.	3.7	151
8	Improved development of human embryonic stem cell-derived embryoid bodies by stirred vessel cultivation. Biotechnology and Bioengineering, 2006, 94, 938-948.	1.7	150
9	Multivariate analysis of cell culture bioprocess dataâ€"Lactate consumption as process indicator. Journal of Biotechnology, 2012, 162, 210-223.	1.9	144
10	Transcriptome and proteome analysis of Chinese hamster ovary cells under low temperature and butyrate treatment. Journal of Biotechnology, 2010, 145, 143-159.	1.9	137
11	On metabolic shift to lactate consumption in fed-batch culture of mammalian cells. Metabolic Engineering, 2012, 14, 138-149.	3.6	135
12	Efficient assembly of rat hepatocyte spheroids for tissue engineering applications. , 1996, 50, 404-415.		131
13	Real-time measurement of anchorage-dependent cell adhesion using a quartz crystal microbalance. Biotechnology Progress, 1993, 9, 105-108.	1.3	126
14	Genomic and proteomic exploration of CHO and hybridoma cells under sodium butyrate treatment. Biotechnology and Bioengineering, 2008, 99, 1186-1204.	1.7	115
15	Transcriptome and Proteome Profiling to Understanding the Biology of High Productivity CHO Cells. Molecular Biotechnology, 2006, 34, 125-140.	1.3	112
16	Large-scale mammalian cell culture. Current Opinion in Biotechnology, 1997, 8, 148-153.	3.3	109
17	The loss of antibody productivity in continuous culture of hybridoma cells. Biotechnology and Bioengineering, 1990, 35, 469-476.	1.7	108
18	On-line characterization of a hybridoma cell culture process. Biotechnology and Bioengineering, 1994, 44, 170-177.	1.7	108

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19	Glucose metabolism in mammalian cell culture: new insights for tweaking vintage pathways. Trends in Biotechnology, 2010, 28, 476-484.	4.9	106
20	Regulation of Glucose Metabolism â€“ A Perspective From Cell Bioprocessing. Trends in Biotechnology, 2016, 34, 638-651.	4.9	103
21	The role of actin filaments and microtubules in hepatocyte spheroid self-assembly. Cytoskeleton, 2001, 48, 175-189.	4.4	99
22	Systems Analysis of N-Glycan Processing in Mammalian Cells. PLoS ONE, 2007, 2, e713.	1.1	99
23	Analysis of cellular metabolism of hybridoma cells at distinct physiological states. Journal of Bioscience and Bioengineering, 2003, 95, 317-327.	1.1	97
24	Uncovering Genes with Divergent mRNA-Protein Dynamics in Streptomyces coelicolor. PLoS ONE, 2008, 3, e2097.	1.1	96
25	Mechanistics of formation and ultrastructural evaluation of hepatocyte spheroids. In Vitro Cellular and Developmental Biology - Animal, 1996, 32, 197-203.	0.7	95
26	Engineering cell metabolism for high-density cell culture via manipulation of sugar transport. Journal of Biotechnology, 2007, 131, 168-176.	1.9	93
27	Comparative transcriptome analysis to unveil genes affecting recombinant protein productivity in mammalian cells. Biotechnology and Bioengineering, 2009, 102, 246-263.	1.7	92
28	Extended liver-specific functions of porcine hepatocyte spheroids entrapped in collagen gel. In Vitro Cellular and Developmental Biology - Animal, 1995, 31, 340-346.	0.7	90
29	Alteration of mammalian cell metabolism by dynamic nutrient feeding. Cytotechnology, 1997, 24, 99-108.	0.7	90
30	Convergent transcription confers a bistable switch in Enterococcus faecalis conjugation. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9721-9726.	3.3	88
31	Hepatocyte function in a hollow fiber bioreactor: A potential bioartificial liver. Journal of Surgical Research, 1992, 53, 549-557.	0.8	86
32	Formation of Microscale Gradients of Protein Using Heterobifunctional Photolinkers. Bioconjugate Chemistry, 1997, 8, 658-663.	1.8	86
33	Large scale gene expression profiling of metabolic shift of mammalian cells in culture. Journal of Biotechnology, 2004, 107, 1-17.	1.9	84
34	Mammalian Systems Biotechnology Reveals Global Cellular Adaptations in a Recombinant CHO Cell Line. Cell Systems, 2017, 4, 530-542.e6.	2.9	84
35	Extracorporeal Application of a Gel-Entrapment, Bioartificial Liver: Demonstration of Drug Metabolism and Other Biochemical Functions. Cell Transplantation, 1993, 2, 441-452.	1.2	83
36	Enhanced Cytochrome P450 IA1 Activity of Self-Assembled Rat Hepatocyte Spheroids. Cell Transplantation, 1999, 8, 233-246.	1.2	81

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37	Comparative transcriptional analysis of mouse hybridoma and recombinant Chinese hamster ovary cells undergoing butyrate treatment. Journal of Bioscience and Bioengineering, 2007, 103, 82-91.	1.1	81
38	SOX10 Single Transcription Factor-Based Fast and Efficient Generation ofÂOligodendrocytes from Human Pluripotent Stem Cells. Stem Cell Reports, 2018, 10, 655-672.	2.3	81
39	Gel-Entrapment Bioartificial Liver Therapy in Galactosamine Hepatitis. Journal of Surgical Research, 1995, 59, 179-184.	0.8	80
40	Three-dimensional co-culture of hepatocytes and stellate cells. Cytotechnology, 2004, 45, 125-140.	0.7	80
41	Amino acid levels determine metabolism and CYP450 function of hepatocytes and hepatoma cell lines. Nature Communications, 2020, 11, 1393.	5.8	79
42	Cell volume measurement as an estimation of mammalian cell biomass. Biotechnology and Bioengineering, 1990, 36, 191-197.	1.7	75
43	Kinetic study of hybridoma cell growth in continuous culture. I. A model for non-producing cells. Biotechnology and Bioengineering, 1991, 37, 55-64.	1.7	75
44	Hepatocyte culture systems for artificial liver support. Critical Care Medicine, 1992, 20, 1157-1168.	0.4	75
45	Endothelium-Mediated Hepatocyte Recruitment in the Establishment of Liver-like TissueIn Vitro. Tissue Engineering, 2006, 12, 1627-1638.	4.9	75
46	On-line monitoring of hybridoma cell growth using a laser turbidity sensor. Biotechnology and Bioengineering, 1992, 40, 1337-1342.	1.7	74
47	Cultivation of mammalian cells as aggregates in bioreactors: Effect of calcium concentration of spatial distribution of viability. Biotechnology and Bioengineering, 1993, 41, 179-187.	1.7	74
48	Mining manufacturing data for discovery of high productivity process characteristics. Journal of Biotechnology, 2010, 147, 186-197.	1.9	74
49	Evolution of the bioartificial liver: The need for randomized clinical trials. American Journal of Surgery, 1993, 166, 512-521.	0.9	71
50	Extracorporeal Tissue Engineered Liver-Assist Devices. Annual Review of Biomedical Engineering, 2000, 2, 607-632.	5.7	71
51	EST sequencing for gene discovery in Chinese hamster ovary cells. Biotechnology and Bioengineering, 2005, 91, 592-606.	1.7	70
52	Human Embryonic and Rat Adult Stem Cells with Primitive Endoderm-Like Phenotype Can Be Fated to Definitive Endoderm, and Finally Hepatocyte-Like Cells. PLoS ONE, 2010, 5, e12101.	1.1	68
53	Multitagging Proteomic Strategy to Estimate Protein Turnover Rates in Dynamic Systems. Journal of Proteome Research, 2010, 9, 2087-2097.	1.8	68
54	An auxin surge following fertilization in carrots: a mechanism for regulating plant totipotency. Planta, 2002, 214, 505-509.	1.6	67

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55	Advancing mammalian cell culture engineering using genome-scale technologies. Trends in Biotechnology, 2007, 25, 401-408.	4.9	66
56	Antagonistic self-sensing and mate-sensing signaling controls antibiotic-resistance transfer. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7086-7090.	3.3	66
57	Non-linear reduction for kinetic models of metabolic reaction networks. Metabolic Engineering, 2004, 6, 140-154.	3.6	62
58	Transcriptional Response of Escherichia coli to Temperature Shift. Biotechnology Progress, 2008, 21, 689-699.	1.3	62
59	Advances in process monitoring tools for cell culture bioprocesses. Engineering in Life Sciences, 2015, 15, 459-468.	2.0	62
60	Cultivation of mammalian cells on macroporous microcarriers. Enzyme and Microbial Technology, 1992, 14, 203-208.	1.6	61
61	In pursuit of a super producerâ€"alternative paths to high producing recombinant mammalian cells. Current Opinion in Biotechnology, 2007, 18, 557-564.	3.3	61
62	Multiplicity of Steady States in Glycolysis and Shift of Metabolic State in Cultured Mammalian Cells. PLoS ONE, 2015, 10, e0121561.	1.1	61
63	High density culture of mammalian cells with dynamic perfusion based on on-line oxygen uptake rate measurements. Cytotechnology, 1994, 14, 183-190.	0.7	60
64	A TECHNIQUE FOR PORCINE HEPATOCYTE HARVEST AND DESCRIPTION OF DIFFERENTIATED METABOLIC FUNCTIONS IN STATIC CULTURE. Transplantation, 1995, 59, 1459-1463.	0.5	60
65	Bistability in Glycolysis Pathway as a Physiological Switch in Energy Metabolism. PLoS ONE, 2014, 9, e98756.	1.1	60
66	Kinetics of Hepatocyte Spheroid Formation. Biotechnology Progress, 1994, 10, 460-466.	1.3	59
67	Molecular portrait of high productivity in recombinant NS0 cells. Biotechnology and Bioengineering, 2007, 97, 933-951.	1.7	59
68	Low-Glutamine Fed-Batch Cultures of 293-HEK Serum-Free Suspension Cells for Adenovirus Production. Biotechnology Progress, 2003, 19, 501-509.	1.3	58
69	Attachment and growth of mammalian cells on microcarriers with different ion exchange capacities. Biotechnology and Bioengineering, 1987, 29, 1155-1163.	1.7	56
70	Mining bioprocess data: opportunities and challenges. Trends in Biotechnology, 2008, 26, 690-699.	4.9	56
71	Serial propagation of mammalian cells on microcarriers. Biotechnology and Bioengineering, 1985, 27, 1466-1476.	1.7	55
72	Developing genomic platforms for Chinese hamster ovary cells. Biotechnology Advances, 2009, 27, 1028-1035.	6.0	55

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73	Stem cell culture engineering â€“ process scale up and beyond. Biotechnology Journal, 2011, 6, 1317-1329.	1.8	54
74	Kinetics of growth and antibody production by a hybridoma cell line in a perfusion culture. Journal of Bioscience and Bioengineering, 1990, 70, 241-245.	0.9	53
75	Entrapment of Hepatocyte Spheroids in a Hollow Fiber Bioreactor as a Potential Bioartificial Liver. Tissue Engineering, 1995, 1, 29-40.	4.9	53
76	A model for density-dependent growth of anchorage-dependent mammalian cells. Biotechnology and Bioengineering, 1988, 32, 1061-1066.	1.7	52
77	Cultivation of anchorage-dependent animal cells in microsphere-induced aggregate culture. Applied Microbiology and Biotechnology, 1991, 34, 735-41.	1.7	51
78	Confocal Laser Scanning Microscopy Examination of Cell Distribution in Macroporous Microcarriers. Biotechnology Progress, 1996, 12, 398-402.	1.3	51
79	Flow cytometric study of hybridoma cell culture: Correlation between cell surface fluorescence and IgG production rate. Enzyme and Microbial Technology, 1990, 12, 571-576.	1.6	49
80	Kinetic study of hybridoma cell growth in continuous culture: II. Behavior of producers and comparison to nonproducers. Biotechnology and Bioengineering, 1991, 38, 1020-1028.	1.7	49
81	Engineering Cells for Cell Culture Bioprocessing â€“ Physiological Fundamentals. Advances in Biochemical Engineering/Biotechnology, 2006, 101, 119-164.	0.6	49
82	Tweaking biological switches through a better understanding of bistability behavior. Current Opinion in Biotechnology, 2008, 19, 475-481.	3.3	49
83	Conserved MicroRNAs in Chinese hamster ovary cell lines. Biotechnology and Bioengineering, 2011, 108, 475-480.	1.7	49
84	Hollow fiber bioartificial liver utilizing collagen-entrapped porcine hepatocyte spheroids. , 1996, 52, 34-44.		48
85	Animal cell bioreactors â€” recent advances and challenges to scaleâ€up. Canadian Journal of Chemical Engineering, 1991, 69, 409-420.	0.9	47
86	A Bistable Gene Switch for Antibiotic Biosynthesis: The Butyrolactone Regulon in Streptomyces coelicolor. PLoS ONE, 2008, 3, e2724.	1.1	47
87	Biofilm growth alters regulation of conjugation by a bacterial pheromone. Molecular Microbiology, 2011, 81, 1499-1510.	1.2	46
88	Bistability versus Bimodal Distributions in Gene Regulatory Processes from Population Balance. PLoS Computational Biology, 2011, 7, e1002140.	1.5	46
89	Development of a bioartificial liver employing xenogeneic hepatocytes. Cytotechnology, 1997, 23, 29-38.	0.7	45
90	Variation of Stoichiometric Ratios and Their Correlation for Monitoring and Control of Animal Cell Cultures. Biotechnology Progress, 1998, 14, 434-441.	1.3	45

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91	Fedbatch Culture and Dynamic Nutrient Feeding. Advances in Biochemical Engineering/Biotechnology, 2006, 101, 43-74.	0.6	45
92	An anesthetized model of lethal canine galactosamine fulminant hepatic failure. Hepatology, 1995, 21, 796-804.	3.6	44
93	Genomic and proteomic perspectives in cell culture engineering. Journal of Biotechnology, 2002, 94, 73-92.	1.9	44
94	A diffusionâ€“reaction model for DNA microarray assays. Journal of Biotechnology, 2004, 114, 31-45.	1.9	44
95	Enhanced Morphology and Function in Hepatocyte Spheroids: A Model of Tissue Self-Assembly. Tissue Engineering, 1998, 4, 65-74.	4.9	43
96	Determinants and rate laws of growth and death of hybridoma cells in continuous culture. , 1998, 57, 642-654.		41
97	Proteomic Investigation of Metabolic Shift in Mammalian Cell Culture. Biotechnology Progress, 2001, 17, 1137-1144.	1.3	41
98	Identification of rate-limiting steps in cephalosporin C biosynthesis in Cephalosporium acremonium: a theoretical analysis. Applied Microbiology and Biotechnology, 1992, 38, 122-8.	1.7	40
99	A kinetic model of quantitative real-time polymerase chain reaction. Biotechnology and Bioengineering, 2005, 91, 848-860.	1.7	40
100	Unveiling steady-state multiplicity in hybridoma cultures: The cybernetic approach. Biotechnology and Bioengineering, 2003, 81, 80-91.	1.7	39
101	Dynamic gene expression for metabolic engineering of mammalian cells in culture. Metabolic Engineering, 2013, 20, 212-220.	3.6	39
102	Activation of Hypoxic Response in Human Embryonic Stem Cellâ€“Derived Embryoid Bodies. Experimental Biology and Medicine, 2008, 233, 1044-1057.	1.1	38
103	Genome-wide inference of regulatory networks in Streptomyces coelicolor. BMC Genomics, 2010, 11, 578.	1.2	38
104	Carbon source regulation of cephem antibiotic production by resting cells of Streptomyces clavuligerus and its reversal by protein synthesis inhibitors. Enzyme and Microbial Technology, 1984, 6, 155-160.	1.6	37
105	Kinetic analysis of cephalosporin biosynthesis inStreptomyces clavuligerus. Biotechnology and Bioengineering, 1991, 38, 941-947.	1.7	36
106	Production of Human Natural Killer Cells for Adoptive Immunotherapy Using a Computer-Controlled Stirred-Tank Bioreactor. Stem Cells and Development, 1996, 5, 475-483.	1.0	36
107	A framework to analyze multiple time series data: A case study with Streptomyces coelicolor. Journal of Industrial Microbiology and Biotechnology, 2006, 33, 159-172.	1.4	36
108	GlycoVis: Visualizing glycan distribution in the proteinN-glycosylation pathway in mammalian cells. Biotechnology and Bioengineering, 2006, 95, 946-960.	1.7	36

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109	Cultivation of Mammalian Cells in Bioreactors. Biotechnology Progress, 1985, 1, 209-215.	1.3	35
110	Natural Killer Cell Proliferation Is Dependent on Human Serum and Markedly Increased Utilizing an Enriched Supplemented Basal Medium. Stem Cells and Development, 1995, 4, 149-158.	1.0	35
111	Recurring genomic structural variation leads to clonal instability and loss of productivity. Biotechnology and Bioengineering, 2019, 116, 41-53.	1.7	35
112	Loss of viability in hybridoma cell cultureâ€"A kinetic study. Enzyme and Microbial Technology, 1987, 9, 607-611.	1.6	34
113	A Boolean algorithm for reconstructing the structure of regulatory networks. Metabolic Engineering, 2004, 6, 326-339.	3.6	34
114	17Î²-Hydroxysteroid dehydrogenase type 7 (Hsd17b7) reverts cholesterol auxotrophy in NS0 cells. Journal of Biotechnology, 2006, 121, 241-252.	1.9	34
115	A scaffold for the Chinese hamster genome. Biotechnology and Bioengineering, 2007, 98, 429-439.	1.7	34
116	Effect of glutamate on the degradation of pentachlorophenol by Flavobacterium sp.. Applied Microbiology and Biotechnology, 1991, 35, 100.	1.7	33
117	Mammalian cell culture processes. Current Opinion in Biotechnology, 1992, 3, 110-114.	3.3	33
118	Receding Cytochrome P450 Activity in Disassembling Hepatocyte Spheroids. Tissue Engineering, 1999, 5, 207-221.	4.9	33
119	Mining transcriptome data for functionâ€"trait relationship of hyper productivity of recombinant antibody. Biotechnology and Bioengineering, 2009, 102, 1654-1669.	1.7	33
120	Monitoring of mammalian cell growth and virus production process using on-line oxygen uptake rate measurement. Enzyme and Microbial Technology, 1995, 17, 779-783.	1.6	32
121	Large-scale gene expression analysis of cholesterol dependence in NS0 cells. Biotechnology and Bioengineering, 2005, 90, 552-567.	1.7	32
122	Quality assessment of crossâ€€species hybridization of CHO transcriptome on a mouse DNA oligo microarray. Biotechnology and Bioengineering, 2008, 101, 1359-1365.	1.7	32
123	Global insights into the Chinese hamster and CHO cell transcriptomes. Biotechnology and Bioengineering, 2015, 112, 965-976.	1.7	32
124	A hybrid mechanistic-empirical model for in silico mammalian cell bioprocess simulation. Metabolic Engineering, 2021, 66, 31-40.	3.6	32
125	Alteration of cellular metabolism by consecutive fed-batch cultures of mammalian cells. Journal of Bioscience and Bioengineering, 1999, 87, 805-810.	1.1	31
126	Reverting cholesterol auxotrophy of NS0 cells by altering epigenetic gene silencing. Biotechnology and Bioengineering, 2006, 93, 820-827.	1.7	31

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127	A two-compartment cell entrapment bioreactor with three different holding times for cells, high and low molecular weight compounds. Cytotechnology, 1990, 4, 127-137.	0.7	30
128	Staining with Fluorescein Diacetate Correlates with Hepatocyte Function. Biotechnic and Histochemistry, 1993, 68, 56-63.	0.7	30
129	Transcriptome dynamics-based operon prediction and verification in Streptomyces coelicolor. Nucleic Acids Research, 2007, 35, 7222-7236.	6.5	30
130	Mechanical properties and cytocompatibility of biomimetic hydroxyapatite-gelatin nanocomposites. Journal of Materials Research, 2006, 21, 3090-3098.	1.2	29
131	Reaching the depth of the Chinese hamster ovary cell transcriptome. Biotechnology and Bioengineering, 2010, 105, 1002-1009.	1.7	29
132	Genome Sequence of the Curdlan-Producing Agrobacterium sp. Strain ATCC 31749. Journal of Bacteriology, 2011, 193, 4294-4295.	1.0	29
133	Transcriptome dynamics of transgene amplification in Chinese hamster ovary cells. Biotechnology and Bioengineering, 2014, 111, 518-528.	1.7	29
134	Probing Enhanced Cytochrome P450 2B1/2 Activity in Rat Hepatocyte Spheroids through Confocal Laser Scanning Microscopy. Cell Transplantation, 2001, 10, 329-342.	1.2	28
135	Titanium-Enriched Hydroxyapatiteâ€“Gelatin Scaffolds with Osteogenically Differentiated Progenitor Cell Aggregates for Calvaria Bone Regeneration. Tissue Engineering - Part A, 2013, 19, 1803-1816.	1.6	27
136	A neural network based pattern recognition system for somatic embryos of Douglas fir. Plant Cell, Tissue and Organ Culture, 1999, 56, 25-35.	1.2	26
137	Cell line development for biomanufacturing processes: recent advances and an outlook. Biotechnology Letters, 2015, 37, 1553-1564.	1.1	26
138	PDGFRÎ±+ Cells in Embryonic Stem Cell Cultures Represent the InÂVitro Equivalent of the Pre-implantation Primitive Endoderm Precursors. Stem Cell Reports, 2017, 8, 318-333.	2.3	26
139	Segment-Specific Kinetics of mRNA, cRNA, and vRNA Accumulation during Influenza Virus Infection. Journal of Virology, 2021, 95, .	1.5	26
140	Mechanisms of peptide sex pheromone regulation of conjugation in Enterococcus faecalis. MicrobiologyOpen, 2017, 6, e00492.	1.2	25
141	Single Copy Transgene Integration in a Transcriptionally Active Site for Recombinant Protein Synthesis. Biotechnology Journal, 2018, 13, e1800226.	1.8	24
142	Regulation of Metabolic Homeostasis in Cell Culture Bioprocesses. Trends in Biotechnology, 2020, 38, 1113-1127.	4.9	24
143	Serial propagation of mammalian cells on gelatin-coated microcarriers. Biotechnology and Bioengineering, 1988, 32, 1037-1052.	1.7	23
144	Cultivation of artemisia annua L plantlets in a bioreactor containing a single carbon and a single nitrogen source. Biotechnology and Bioengineering, 1989, 34, 1209-1213.	1.7	23

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145	Entrapment of Cultured Pancreas Islets in Three-Dimensional Collagen Matrices. Cell Transplantation, 1992, 1, 51-60.	1.2	23
146	Cybernetic Modeling and Regulation of Metabolic Pathways in Multiple Steady States of Hybridoma Cells. Biotechnology Progress, 2000, 16, 847-853.	1.3	23
147	Advancing biopharmaceutical process science through transcriptome analysis. Current Opinion in Biotechnology, 2014, 30, 113-119.	3.3	23
148	Biological Assessment of a Calcium Silicate Incorporated Hydroxyapatite-Gelatin Nanocomposite: A Comparison to Decellularized Bone Matrix. BioMed Research International, 2014, 2014, 1-12.	0.9	22
149	Morphological kinetics and distribution in somatic embryo cultures. Biotechnology and Bioengineering, 1994, 44, 368-378.	1.7	21
150	Spatial distribution of mammalian cells grown on macroporous microcarriers with improved attachment kinetics. Biotechnology Progress, 1992, 8, 486-493.	1.3	20
151	Analysis of temporal and spatial expression of the CcaR regulatory element in the cephamycin C biosynthetic pathway using green fluorescent protein. Molecular Microbiology, 2001, 40, 530-541.	1.2	20
152	Characterization of a Hollow Fiber Bioartificial Liver Device. Artificial Organs, 2005, 29, 419-422.	1.0	20
153	MAPC culture conditions support the derivation of cells with nascent hypoblast features from bone marrow and blastocysts. Journal of Molecular Cell Biology, 2012, 4, 423-426.	1.5	20
154	Role of Intracellular Stochasticity in Biofilm Growth. Insights from Population Balance Modeling. PLoS ONE, 2013, 8, e79196.	1.1	20
155	Antagonistic Donor Density Effect Conserved in Multiple Enterococcal Conjugative Plasmids. Applied and Environmental Microbiology, 2016, 82, 4537-4545.	1.4	20
156	Convergent Transcription in the Butyrolactone Regulon in Streptomyces coelicolor Confers a Bistable Genetic Switch for Antibiotic Biosynthesis. PLoS ONE, 2011, 6, e21974.	1.1	20
157	Comparison of growth kinetics of producing and nonproducing hybridoma cells in batch culture. Enzyme and Microbial Technology, 1991, 13, 690-696.	1.6	19
158	Differential gene expression analysis during porcine hepatocyte spheroid formation. Mammalian Genome, 2002, 13, 515-523.	1.0	19
159	An analysis of the use of genomic DNA as a universal reference in two channel DNA microarrays. BMC Genomics, 2005, 6, 66.	1.2	19
160	Interspecies Organogenesis for Human Transplantation. Cell Transplantation, 2019, 28, 1091-1105.	1.2	19
161	Fluctuations in continuous mammalian cell bioreactors with retention. Biotechnology Progress, 1992, 8, 397-403.	1.3	18
162	Stochasticity in the enterococcal sex pheromone response revealed by quantitative analysis of transcription in single cells. PLoS Genetics, 2017, 13, e1006878.	1.5	18

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163	Interactive dual control of glucose and glutamine feeding in hybridoma cultivation. Journal of Bioscience and Bioengineering, 1996, 81, 329-336.	0.9	17
164	Toward genomic cell culture engineering. Cytotechnology, 2006, 50, 121-140.	0.7	17
165	A Scalable Approach for Discovering Conserved Active Subnetworks across Species. PLoS Computational Biology, 2010, 6, e1001028.	1.5	17
166	Scalable expansion of multipotent adult progenitor cells as threeâ€dimensional cell aggregates. Biotechnology and Bioengineering, 2011, 108, 364-375.	1.7	17
167	Effect of cultivation age and embryo size on specific oxygen uptake rate in developing somatic embryos ofDaucus carota L.. Biotechnology Letters, 1992, 14, 701-706.	1.1	16
168	Population and biomass kinetics in fed-batch cultures ofDaucus carota L. somatic embryos. Biotechnology and Bioengineering, 1993, 41, 811-818.	1.7	16
169	Enhanced Differentiation of Adult Bone Marrow-Derived Stem Cells to Liver Lineage in Aggregate Culture. Tissue Engineering - Part A, 2011, 17, 2331-2341.	1.6	16
170	Mechanism for multiplicity of steady states with distinct cell concentration in continuous culture of mammalian cells. Biotechnology and Bioengineering, 2015, 112, 1437-1445.	1.7	16
171	Human fibroblastic cells attach to controlled-charge and gelatin-coated microcarriers at different rates. Journal of Biotechnology, 1987, 6, 9-12.	1.9	15
172	Kinetics of mercuric reduction in intact and permeabilized Escherichia coli cells. Enzyme and Microbial Technology, 1990, 12, 854-859.	1.6	15
173	Model-Driven Engineering of N-Linked Glycosylation in Chinese Hamster Ovary Cells. ACS Synthetic Biology, 2019, 8, 2524-2535.	1.9	15
174	Dexamethasone Effects on Rat Hepatocyte Spheroid Formation and Function. Tissue Engineering, 2005, 11, 415-426.	4.9	14
175	Automated network generation and analysis of biochemical reaction pathways using RING. Metabolic Engineering, 2018, 49, 84-93.	3.6	14
176	Population dynamics of human activated natural killer cells in culture. Biotechnology and Bioengineering, 1994, 43, 685-692.	1.7	13
177	Effect of insulin on a serum-free hybridoma culture. Biotechnology and Bioengineering, 1995, 47, 181-185.	1.7	13
178	Topographical imaging of macroporous microcarriers using laser scanning confocal microscopy. Journal of Bioscience and Bioengineering, 1996, 81, 437-444.	0.9	13
179	Advancement in bioprocess technology: parallels between microbial natural products and cell culture biologics. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 785-797.	1.4	13
180	In Vitro Pluripotent Stem Cell Differentiation to Hepatocyte Ceases Further Maturation at an Equivalent Stage of E15 in Mouse Embryonic Liver Development. Stem Cells and Development, 2018, 27, 910-921.	1.1	13

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181	Heterogeneous distribution of lysine 6-aminotransferase during cephamycin C biosynthesis in Streptomyces clavuligerus demonstrated using green fluorescent protein as a reporter. Microbiology (United Kingdom), 2000, 146, 1869-1880.	0.7	13
182	Modeling of gene regulatory processes by population-mediated signaling: New applications of population balances. Chemical Engineering Science, 2012, 70, 188-199.	1.9	12
183	The road to regenerative liver therapies: The triumphs, trials and tribulations. Biotechnology Advances, 2013, 31, 1085-1093.	6.0	12
184	Cell Expansion During Directed Differentiation of Stem Cells Toward the Hepatic Lineage. Stem Cells and Development, 2017, 26, 274-284.	1.1	12
185	Metabolic Engineering of Cephalosporin Biosynthesis in Streptomyces clavuligerusa. Annals of the New York Academy of Sciences, 1996, 782, 17-24.	1.8	11
186	Analysis of the use of fortified medium in continuous culture of mammalian cells. Cytotechnology, 1999, 31, 243-254.	0.7	11
187	Hypothermic Maintenance of Hepatocyte Spheroids. Cell Transplantation, 2005, 14, 375-389.	1.2	11
188	Exploring the transcriptome space of a recombinant BHK cell line through next generation sequencing. Biotechnology and Bioengineering, 2014, 111, 770-781.	1.7	11
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