Harvey W Blanch

List of Publications by Year
in descending order

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140 papers	11,715 citations	23567 58 h-index	27406 106 g-index
142 all docs	142 docs citations	142 times ranked	10529 citing authors

#	Article	IF	Citations
1	Bubble coalescence and break-up in air-sparged bubble columns. AIChE Journal, 1990, 36, 1485-1499.	3.6	1,005
2	The challenge of enzyme cost in the production of lignocellulosic biofuels. Biotechnology and Bioengineering, 2012, 109, 1083-1087.	3.3	792
3	By-product inhibition effects on ethanolic fermentation bySaccharomyces cerevisiae. Biotechnology and Bioengineering, 1983, 25, 103-121.	3.3	338
4	Integration of chemical catalysis with extractive fermentation to produce fuels. Nature, 2012, 491, 235-239.	27.8	327
5	Technoâ€economic analysis of a lignocellulosic ethanol biorefinery with ionic liquid preâ€treatment. Biofuels, Bioproducts and Biorefining, 2011, 5, 562-569.	3.7	303
6	Ionic liquid pretreatment of cellulosic biomass: Enzymatic hydrolysis and ionic liquid recycle. Biotechnology and Bioengineering, 2011, 108, 511-520.	3.3	282
7	Lysozyme Net Charge and Ion Binding in Concentrated Aqueous Electrolyte Solutions. Journal of Physical Chemistry B, 1999, 103, 1368-1374.	2.6	241
8	Swelling equilibria for positively ionized polyacrylamide hydrogels. Macromolecules, 1990, 23, 1096-1104.	4.8	227
9	Capillary electrophoresis of DNA in uncross-linked polymer solutions. Journal of Chromatography A, 1993, 652, 3-16.	3.7	220
10	A transient entanglement coupling mechanism for DNA separation by capillary electrophoresis in ultradilute polymer solutions. Electrophoresis, 1994, 15, 597-615.	2.4	212
11	Ionic liquid tolerant hyperthermophilic cellulases for biomass pretreatment and hydrolysis. Green Chemistry, 2010, 12, 338.	9.0	211
12	Enhanced production of cellulase, hemicellulase, and ?-glucosidase byTrichoderma reesei (Rut C-30). Biotechnology and Bioengineering, 1981, 23, 1837-1849.	3.3	210
13	Molecular thermodynamics of aqueous two-phase systems for bioseparations. AIChE Journal, 1988, 34, 1585-1594.	3.6	205
14	Dilatational Rheology of BSA Conformers at the Air/Water Interface. Langmuir, 2003, 19, 2349-2356.	3.5	199
15	Swelling equilibria for weakly ionizable, temperature-sensitive hydrogels. Macromolecules, 1991, 24, 549-551.	4.8	193
16	Effects of dissolved oxygen concentration on hybridoma growth and metabolism in continuous culture. Journal of Cellular Physiology, 1987, 132, 524-530.	4.1	184
17	Identification of potential fermentation inhibitors in conversion of hybrid poplar hydrolyzate to ethanol. Biomass and Bioenergy, 2002, 22, 125-138.	5.7	177
18	Role of Alcohols in Growth, Lipid Composition, and Membrane Fluidity of Yeasts, Bacteria, and Archaea. Applied and Environmental Microbiology, 2011, 77, 6400-6408.	3.1	174

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19	BUBBLE COALESCENCE IN STAGNANT LIQUIDS. Chemical Engineering Communications, 1986, 43, 237-261.	2.6	168
20	Identification and characterization of a multidomain hyperthermophilic cellulase from an archaeal enrichment. Nature Communications, 2011, 2, 375.	12.8	163
21	Direct Imaging of Lysozyme Adsorption onto Mica by Atomic Force Microscopy. Langmuir, 2002, 18, 5841-5850.	3.5	158
22	Technoeconomic analysis of biofuels: A wiki-based platform for lignocellulosic biorefineries. Biomass and Bioenergy, 2010, 34, 1914-1921.	5.7	153
23	Next-generation biomass feedstocks for biofuel production. Genome Biology, 2008, 9, 242.	9.6	144
24	Swelling properties of acrylamide-based ampholytic hydrogels: comparison of experiment with theory. Polymer, 1995, 36, 1061-1069.	3.8	140
25	Biomass deconstruction to sugars. Biotechnology Journal, 2011, 6, 1086-1102.	3.5	140
26	Some characteristics of protein precipitation by salts. Biotechnology and Bioengineering, 1992, 40, 1155-1164.	3.3	135
27	Kinetics of the enzymatic hydrolysis of cellulose. Biotechnology and Bioengineering, 1984, 26, 221-230.	3.3	131
28	Swelling equilibria for acrylamide-based polyampholyte hydrogels. Macromolecules, 1992, 25, 1955-1958.	4.8	130
29	A mechanistic model of the enzymatic hydrolysis of cellulose. Biotechnology and Bioengineering, 2010, 107, 37-51.	3.3	129
30	The effects of polymer properties on DNA separations by capillary electrophoresis in uncross-linked polymer solutions. Electrophoresis, 1996, 17, 744-757.	2.4	125
31	Transition electrolyte concentrations for bubble coalescence. AICHE Journal, 1990, 36, 1425-1429.	3.6	124
32	Understanding cost drivers and economic potential of two variants of ionic liquid pretreatment for cellulosic biofuel production. Biotechnology for Biofuels, 2014, 7, 86.	6.2	120
33	Transient responses of hybridoma cells to nutrient additions in continuous culture: I. Glucose pulse and step changes. Biotechnology and Bioengineering, 1989, 33, 477-486.	3.3	116
34	Recovery of Sugars from Ionic Liquid Biomass Liquor by Solvent Extraction. Bioenergy Research, 2010, 3, 123-133.	3.9	112
35	Multiple Approaches To Enhance the Cultivability of Bacteria Associated with the Marine Sponge Haliclona (gellius) sp. Applied and Environmental Microbiology, 2011, 77, 2130-2140.	3.1	105
36	Lactic acid production by Lactobacillus delbreuckii in a hollow fiber fermenter. Biotechnology Letters, 1982, 4, 483-488.	2.2	100

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37	Enhanced cellulase production in fed-batch culture of Trichoderma reesei C30. Enzyme and Microbial Technology, 1984, 6, 73-77.	3.2	99
38	Swelling equilibria for ionized temperatureâ€sensitive gels in water and in aqueous salt solutions. Journal of Chemical Physics, 1990, 92, 2061-2066.	3.0	98
39	Examination of primary metabolic pathways in a murine hybridoma with carbon-13 nuclear magnetic resonance spectroscopy. Biotechnology and Bioengineering, 1994, 44, 563-585.	3.3	98
40	The transient responses of hybridoma cells to nutrient additions in continuous culture: II. Glutamine pulse and step changes. Biotechnology and Bioengineering, 1989, 33, 487-499.	3.3	97
41	Redesigning Escherichia coli Metabolism for Anaerobic Production of Isobutanol. Applied and Environmental Microbiology, 2011, 77, 4894-4904.	3.1	96
42	Initial- and Processive-Cut Products Reveal Cellobiohydrolase Rate Limitations and the Role of Companion Enzymes. Biochemistry, 2012, 51, 442-452.	2.5	93
43	Estradiol stimulates the biosynthetic pathways of breast cancer cells: Detection by metabolic flux analysis. Metabolic Engineering, 2006, 8, 639-652.	7.0	88
44	Kinetics of lipase-catalysed interesterification of triglycerides in cyclohexane. Enzyme and Microbial Technology, 1991, 13, 98-103.	3.2	86
45	Quantitative in vivo nuclear magnetic resonance studies of hybridoma metabolism. Biotechnology and Bioengineering, 1994, 43, 1059-1074.	3.3	86
46	Escherichia coli for biofuel production: bridging the gap from promise to practice. Trends in Biotechnology, 2012, 30, 538-545.	9.3	86
47	Enzyme-catalyzed interesterification of triglycerides in supercritical carbon dioxide. Industrial & Engineering Chemistry Research, 1991, 30, 939-946.	3.7	84
48	The use of coated and uncoated capillaries for the electrophoretic separation of DNA in dilute polymer solutions. Electrophoresis, 1995, 16, 64-74.	2.4	80
49	Interactions of lysozyme in guanidinium chloride solutions from static and dynamic light-scattering measurements. Biotechnology and Bioengineering, 2005, 90, 482-490.	3.3	78
50	Production of an acetone-butanol-ethanol mixture from Clostridium acetobutylicum and its conversion to high-value biofuels. Nature Protocols, 2015, 10, 528-537.	12.0	77
51	Effect of alcohols on aqueous lysozymeâ€“lysozyme interactions from static light-scattering measurements. Biophysical Chemistry, 2004, 107, 289-298.	2.8	76
52	Continuous production of lactic acid in a cell recycle reactor. Applied Biochemistry and Biotechnology, 1985, 11, 317-332.	2.9	72
53	Bioprocessing for biofuels. Current Opinion in Biotechnology, 2012, 23, 390-395.	6.6	71
54	Polymeric separation media for capillary electrophoresis of nucleic acids. Electrophoresis, 1997, 18, 2243-2254.	2.4	69

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55	Partitioning of proteins and small biomolecules in temperature- and pH-sensitive hydrogels. Polymer, 1996, 37, 2151-2164.	3.8	64
56	Biodesulfurization of dibenzothiophene inEscherichia coli is enhanced by expression of aVibrio harveyi oxidoreductase gene. Biotechnology and Bioengineering, 2000, 67, 72-79.	3.3	64
57	Renewable fuels from biomass: Technical hurdles and economic assessment of biological routes. AICHE Journal, 2015, 61, 2689-2701.	3.6	63
58	Structural Insights into the Affinity of Cel7A Carbohydrate-binding Module for Lignin. Journal of Biological Chemistry, 2015, 290, 22818-22826.	3.4	62
59	LIQUID CIRCULATION PATTERNS AND THEIR EFFECT ON GAS HOLD-UP AND AXIAL MIXING IN BUBBLE COLUMNS. Chemical Engineering Communications, 1983, 19, 243-262.	2.6	59
60	Mutagenesis of Trichoderma reesei endoglucanase I: impact of expression host on activity and stability at elevated temperatures. BMC Biotechnology, 2015, 15, 11.	3.3	56
61	Salt-induced protein precipitation: Phase equilibria from an equation of state. Fluid Phase Equilibria, 1996, 116, 140-147.	2.5	54
62	Chemocatalytic Upgrading of Tailored Fermentation Products Toward Biodiesel. ChemSusChem, 2014, 7, 2445-2448.	6.8	54
63	Surface Forces and Drainage Kinetics of Protein-Stabilized Aqueous Films. Langmuir, 2003, 19, 7503-7513.	3.5	53
64	Metabolic and Morphological Differences between Rapidly Proliferating Cancerous and Normal Breast Epithelial Cells. Biotechnology Progress, 2008, 24, 334-341.	2.6	52
65	Biological Characterisation of Haliclona (?gellius) sp.: Sponge and Associated Microorganisms. Microbial Ecology, 2009, 58, 903-920.	2.8	52
66	DNA Separations by Slab Gel, and Capillary Electrophoresis: Theory and Practice. Separation and Purification Reviews, 1995, 24, 1-118.	0.8	50
67	Continuous production of lactic acid from glucose and lactose in a cell-recycle reactor. Applied Biochemistry and Biotechnology, 1985, 11, 457-463.	2.9	45
68	Monte Carlo simulations of hydrophobic weak polyelectrolytes: Titration properties and pHâ€induced structural transitions for polymers containing weak electrolytes. Journal of Chemical Physics, 1992, 97, 8767-8774.	3.0	44
69	Addressing the Need for Alternative Transportation Fuels: The Joint BioEnergy Institute. ACS Chemical Biology, 2008, 3, 17-20.	3.4	44
70	Co-production of ethanol, biogas, protein fodder and natural fertilizer in organic farming â€“ Evaluation of a concept for a farm-scale biorefinery. Bioresource Technology, 2012, 104, 440-446.	9.6	44
71	The half-saturation coefficient for dissolved oxygen: A dynamic method for its determination and its effect on dual species competition. Biotechnology and Bioengineering, 1983, 25, 403-416.	3.3	43
72	Amyloid Fibril Formation by Peptide LYS (11-36) in Aqueous Trifluoroethanol. Biomacromolecules, 2004, 5, 1818-1823.	5.4	42

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73	Engineering Cel7A carbohydrate binding module and linker for reduced lignin inhibition. Biotechnology and Bioengineering, 2016, 113, 1369-1374.	3.3	42
74	Physiology and xanthophyll cycle activity ofNannochloropsis gaditana. Biotechnology and Bioengineering, 2001, 75, 1-12.	3.3	41
75	A mechanistic model for rational design of optimal cellulase mixtures. Biotechnology and Bioengineering, 2011, 108, 2561-2570.	3.3	37
76	Bubble coalescence in air-sparged bioreactors. Biotechnology and Bioengineering, 1986, 28, 578-584.	3.3	36
77	A Nuclear Magnetic Resonance Technique for Determining Hybridoma Cell Concentration in Hollow Fiber Bioreactors. Nature Biotechnology, 1990, 8, 1282-1285.	17.5	36
78	Buffer effects on aqueous swelling kinetics of polyelectrolyte gels. Journal of Applied Polymer Science, 1992, 45, 1411-1423.	2.6	36
79	Papain kinetics in the presence of a water-miscible organic solvent. Biotechnology and Bioengineering, 1991, 37, 967-972.	3.3	35
80	Using isotopomer path tracing to quantify metabolic fluxes in pathway models containing reversible reactions. Biotechnology and Bioengineering, 2001, 74, 196-211.	3.3	34
81	Regulation of Sugar Metabolism inSaccharomyces-Type Yeast: Experimental and Conceptual Considerations. Critical Reviews in Biotechnology, 1986, 4, 299-325.	9.0	33
82	Hydroxynitrile lyase at the diisopropyl ether/water interface: Evidence for interfacial enzyme activity. Biotechnology and Bioengineering, 1999, 65, 425-436.	3.3	33
83	Extraction of lignins from aqueousâ€“ionic liquid mixtures by organic solvents. Biotechnology and Bioengineering, 2012, 109, 346-352.	3.3	33
84	Lignocellulosic ethanol production without enzymes â€“ Technoeconomic analysis of ionic liquid pretreatment followed by acidolysis. Bioresource Technology, 2014, 158, 294-299.	9.6	33
85	Monte Carlo simulations of hydrophobic polyelectrolytes. Evidence for a structural transition in response to increasing chain ionization. Journal of Chemical Physics, 1990, 93, 2715-2723.	3.0	32
86	Development of a Native Escherichia coli Induction System for Ionic Liquid Tolerance. PLoS ONE, 2014, 9, e101115.	2.5	31
87	Engineering Clostridium acetobutylicum for production of kerosene and diesel blendstock precursors. Metabolic Engineering, 2014, 25, 124-130.	7.0	31
88	A bio-mimetic cadmium adsorbent: Design, synthesis, and characterization. Biotechnology and Bioengineering, 1989, 34, 180-188.	3.3	30
89	Capillary Electrophoretic Separation of DNA Restriction Fragments in Mixtures of Low- and High-Molecular-Weight Hydroxyethylcellulose. Industrial & Engineering Chemistry Research, 1996, 35, 2900-2908.	3.7	30
90	Role of organic solvents on Pa-hydroxynitrile lyase interfacial activity and stability. Biotechnology and Bioengineering, 2001, 74, 18-28.	3.3	30

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91	Spatial distribution of bacteria associated with the marine sponge Tethya californiana. Marine Biology, 2010, 157, 627-638.	1.5	30
92	Equilibrium swelling properties of weakly Ionizable 2-hydroxyethyl methacrylate (HEMA)-based hydrogels. Journal of Applied Polymer Science, 1994, 52, 783-788.	2.6	29
93	Engineering ionic liquid-tolerant cellulases for biofuels production. Protein Engineering, Design and Selection, 2016, 29, 117-122.	2.1	29
94	Nuclear Magnetic Resonance Methods for Observing the Intracellular Environment of Mammalian Cells. Annals of the New York Academy of Sciences, 1990, 589, 458-475.	3.8	28
95	Effect of extracellular glutamine concentration on primary and secondary metabolism of a murine hybridoma: An in vivo13C nuclear magnetic resonance study. Biotechnology and Bioengineering, 1998, 57, 172-186.	3.3	28
96	Green fluorescent protein as a screen for enzymatic activity in ionic liquidâ€“aqueous systems for in situhydrolysis of lignocellulose. Green Chemistry, 2011, 13, 3107-3110.	9.0	28
97	INVITED REVIEW MICROBIAL GROWTH KINETICS. Chemical Engineering Communications, 1981, 8, 181-211.	2.6	27
98	A theory for the electrophoretic separation of DNA in polymer solutions. Electrophoresis, 1998, 19, 3128-3136.	2.4	27
99	Measurement of Lysozymeâ^'Lysozyme Interactions with Quantitative Affinity Chromatography. Journal of Physical Chemistry B, 2004, 108, 7437-7444.	2.6	27
100	Total Internal Reflection Fluorescence Spectrometer To Study Dynamic Adsorption Phenomena at Liquid/Liquid Interfaces. Industrial & Engineering Chemistry Research, 1998, 37, 3159-3168.	3.7	24
101	Characterization of size-exclusion effects in highly swollen hydrogels: Correlation and prediction. Journal of Applied Polymer Science, 1996, 59, 1337-1346.	2.6	23
102	A kinetic model for enzyme interfacial activity and stability: pa-hydroxynitrile lyase at the diisopropyl ether/water interface. Biotechnology and Bioengineering, 2002, 78, 595-605.	3.3	23
103	Chromatographic measurement of interactions between unlike proteins. Fluid Phase Equilibria, 2004, 219, 139-148.	2.5	23
104	Evaluating endoglucanase Cel7Bâ€lignin interaction mechanisms and kinetics using quartz crystal microgravimetry. Biotechnology and Bioengineering, 2015, 112, 2256-2266.	3.3	23
105	Capillary electrophoresis of DNA in uncrosslinked polymer solutions: Evidence for a new mechanism of DNA separation. , 2000, 52, 259-270.		22
106	A model for optimizing the enzymatic hydrolysis of ionic liquid-pretreated lignocellulose. Bioresource Technology, 2012, 126, 290-297.	9.6	21
107	Regulation of Animal Cell Metabolism in Bioreactors. , 1991, 17, 119-161.		20
108	Synthesis and characterization of polyamides containing unnatural amino acids. Biopolymers, 1995, 35, 503-512.	2.4	19

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109	Capillary electrophoresis of DNA restriction fragments: Effect of polymer properties. Electrophoresis, 1997, 18, 1994-1997.	2.4	17
110	Temperature-Dependent Solvent Disruption of Guanidinium-1,5-Naphthalenedisulfonate Networks Yields a One-Dimensional Pore Structure. Crystal Growth and Design, 2005, 5, 1135-1144.	3.0	17
111	The Hydrodynamics of DNA Electrophoretic Stretch and Relaxation in a Polymer Solution. Biophysical Journal, 2004, 87, 468-475.	0.5	16
112	Elucidating mechanisms of solvent toxicity in ethanologenic Escherichia coli. Biotechnology and Bioengineering, 2010, 106, 721-730.	3.3	16
113	Immobilized Microbial Cells. Plant, Cell and Environment, 1984, 7, 81-105.	5.7	16
114	Phase equilibria for aqueous protein/polyelectrolyte gel systems. AICHE Journal, 1996, 42, 2335-2353.	3.6	15
115	Molecular thermodynamics for fluid-phase equilibria in aqueous two-protein systems. AICHE Journal, 2002, 48, 1292-1300.	3.6	15
116	Kinetics of Adsorption and Proteolytic Cleavage of a Multilayer Ovalbumin Film by Subtilisin Carlsberg. Langmuir, 2008, 24, 7388-7393.	3.5	15
117	Lactase production in continuous culture by Trichoderma reesei Rut-C30. Biotechnology Letters, 1984, 6, 593-596.	2.2	14
118	Survival of the fittest: An economic perspective on the production of novel biofuels. AICHE Journal, 2013, 59, 4454-4460.	3.6	13
119	Pore-size distributions of cationic 2-hydroxyethyl methacrylate (HEMA) hydrogels. Polymer Gels and Networks, 1995, 3, 29-45.	0.6	12
120	Sorption of lysozyme by HEMA copolymer hydrogels. Journal of Applied Polymer Science, 1996, 60, 225-234.	2.6	12
121	Coâ€production of acetone and ethanol with molar ratio control enables production of improved gasoline or jet fuel blends. Biotechnology and Bioengineering, 2016, 113, 2079-2087.	3.3	11
122	An evaluation of cellulose saccharification and fermentation with an engineered Saccharomyces cerevisiae capable of cellobiose and xylose utilization. Biotechnology Journal, 2012, 7, 361-373.	3.5	10
123	Polymer biocompatibility?effect on hybridoma growth and metabolism. Biotechnology Letters, 1986, 8, 463-468.	2.2	9
124	Design and mathematical description of differential contactors used in extractive fermentations. Biotechnology and Bioengineering, 1988, 32, 192-204.	3.3	9
125	Mass Transfer and Cholesterol Oxidase Kinetics in a Liquid-Liquid Two-Phase System. Biocatalysis, 1989, 2, 97-120.	0.9	9
126	Delignification of Miscanthus by Extraction. Separation Science and Technology, 2012, 47, 370-376.	2.5	9

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127	Inhibition of dextransucrase by Î±-D-Glucose derivatives. Applied Biochemistry and Biotechnology, 1991, 31, 237-246.	2.9	8
128	Pore-size distributions of cationic polyacrylamide hydrogels of different compositions maintained at the same swelling capacity. Journal of Macromolecular Science - Physics, 1994, 33, 267-286.	1.0	6
129	Partitioning of hexavalent chromium in temperature-sensitive, polyelectrolyte hydrogels. Polymer Gels and Networks, 1996, 4, 269-300.	0.6	6
130	High-frequency alternating-crossed-field gel electrophoresis with neutral or slightly charged interpenetrating networks to improve DNA separation. Electrophoresis, 1998, 19, 3137-3148.	2.4	4
131	Kinetics of Encapsulated Yeast Alcohol Dehydrogenase Dispersed in an Organic Solvent. Biocatalysis, 1990, 4, 113-139.	0.9	3
132	Analysis of Metabolic Fluxes in Mammalian Cells. , 2000, , 556-594.		3
133	A Novel Optical Method for the Measurement of Biomolecular Diffusion in Polymer Matrices. Biotechnology Progress, 1989, 5, 126-131.	2.6	2
134	Enzymatic Oligomerization of the Tetrapeptide Ester Allylglycine-Phenylalanine-Phenylalanine-Allylglycine Ethyl Ester. Biocatalysis and Biotransformation, 1995, 13, 131-139.	2.0	2
135	Popcorn-polymer formation during hydrogel synthesis. Polymer Gels and Networks, 1995, 3, 47-58.	0.6	1
136	Optimal design of metabolic flux analysis experiments for anchorageâ€dependent mammalian cells using a cellular automaton model. Biotechnology and Bioengineering, 2007, 98, 221-229.	3.3	1
137	Biodesulfurization of dibenzothiophene in Escherichia coli is enhanced by expression of a Vibrio harveyi oxidoreductase gene. Biotechnology and Bioengineering, 2000, 67, 72.	3.3	1
138	Functional differentiation and primary metabolism of mouse mammary epithelial cells in extended-batch and hollow-fiber culture. Biotechnology and Bioengineering, 1992, 40, 672-680.	3.3	0
139	Titelbild: High-Throughput Inâ€…Vitro Glycoside Hydrolase (HIGH) Screening for Enzyme Discovery (Angew. Chem. 47/2011). Angewandte Chemie, 2011, 123, 11205-11205.	2.0	0
140	Cover Picture: Highâ€Throughput Inâ€…Vitro Glycoside Hydrolase (HIGH) Screening for Enzyme Discovery (Angew. Chem. Int. Ed. 47/2011). Angewandte Chemie - International Edition, 2011, 50, 11013-11013.	13.8	0