Jonathan S Dordick

List of Publications by Year
in descending order

399	24,533	5574 82	10734 138
papers	citations	h-index	g-index

415	415	415	23908
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enzymatic catalysis in monophasic organic solvents. Enzyme and Microbial Technology, 1989, 11, 194-211.	3.2	853
2	Ionic liquidâ€mediated selective extraction of lignin from wood leading to enhanced enzymatic cellulose hydrolysis. Biotechnology and Bioengineering, 2009, 102, 1368-1376.	3.3	844
3	Silica Nanoparticle Size Influences the Structure and Enzymatic Activity of Adsorbed Lysozyme. Langmuir, 2004, 20, 6800-6807.	3.5	811
4	Structure and Function of Enzymes Adsorbed onto Single-Walled Carbon Nanotubes. Langmuir, 2004, 20, 11594-11599.	3.5	482
5	Radio-Wave Heating of Iron Oxide Nanoparticles Can Regulate Plasma Glucose in Mice. Science, 2012, 336, 604-608.	12.6	428
6	Polymerization of phenols catalyzed by peroxidase in nonaqueous media. Biotechnology and Bioengineering, 1987, 30, 31-36.	3.3	390
7	Room temperature ionic liquids as emerging solvents for the pretreatment of lignocellulosic biomass. Biotechnology and Bioengineering, 2011, 108, 1229-1245.	3.3	347
8	Organic solvents strip water off enzymes. Biotechnology and Bioengineering, 1992, 39, 392-397.	3.3	342
9	Protein-Assisted Solubilization of Single-Walled Carbon Nanotubes. Langmuir, 2006, 22, 1392-1395.	3.5	290
10	Three-dimensional cellular microarray for high-throughput toxicology assays. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 59-63.	7.1	287
11	Ionic liquid solvent properties as predictors of lignocellulose pretreatment efficacy. Green Chemistry, 2010, 12, 1967.	9.0	282
12	Resveratrol Selectively Remodels Soluble Oligomers and Fibrils of Amyloid AÎ² into Off-pathway Conformers. Journal of Biological Chemistry, 2010, 285, 24228-24237.	3.4	271
13	Effect of gold nanoparticle morphology on adsorbed protein structure and function. Biomaterials, 2011, 32, 7241-7252.	11.4	264
14	High-throughput cellular microarray platforms: applications in drug discovery, toxicology and stem cell research. Trends in Biotechnology, 2009, 27, 342-349.	9.3	255
15	How do organic solvents affect peroxidase structure and function?. Biochemistry, 1992, 31, 2588-2598.	2.5	250
16	Salts dramatically enhance activity of enzymes suspended in organic solvents. Journal of the American Chemical Society, 1994, 116, 2647-2648.	13.7	247
17	Sulfated polysaccharides effectively inhibit SARS-CoV-2 in vitro. Cell Discovery, 2020, 6, 50.	6.7	246
18	Unfolding of Ribonuclease A on Silica Nanoparticle Surfaces. Nano Letters, 2007, 7, 1991-1995.	9.1	238

#	Article	IF	Citations
19	Designing enzymes for use in organic solvents. Biotechnology Progress, 1992, 8, 259-267.	2.6	235
20	Characterization of heparin and severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2) spike glycoprotein binding interactions. Antiviral Research, 2020, 181, 104873.	4.1	233
21	Substrate structure and solvent hydrophobicity control lipase catalysis and enantioselectivity in organic media. Journal of the American Chemical Society, 1991, 113, 2253-2259.	13.7	226
22	Hydration of Enzyme in Nonaqueous Media Is Consistent with Solvent Dependence of Its Activity. Biophysical Journal, 2004, 87, 812-821.	0.5	219
23	Enzyme activation for organic solvents made easy. Trends in Biotechnology, 2008, 26, 48-54.	9.3	217
24	Bidirectional electromagnetic control of the hypothalamus regulates feeding and metabolism. Nature, 2016, 531, 647-650.	27.8	212
25	Cytochrome c on Silica Nanoparticles: Influence of Nanoparticle Size on Protein Structure, Stability, and Activity. Small, 2009, 5, 470-476.	10.0	206
26	Solvent Effect on Organogel Formation by Low Molecular Weight Molecules. Chemistry of Materials, 2006, 18, 5988-5995.	6.7	200
27	Enzyme activation for nonaqueous media. Current Opinion in Biotechnology, 2002, 13, 376-384.	6.6	195
28	Designer DNA architecture offers precise and multivalent spatial pattern-recognition for viral sensing and inhibition. Nature Chemistry, 2020, 12, 26-35.	13.6	193
29	Remote regulation of glucose homeostasis in mice using genetically encoded nanoparticles. Nature Medicine, 2015, 21, 92-98.	30.7	189
30	Increasing Protein Stability through Control of the Nanoscale Environment. Langmuir, 2006, 22, 5833-5836.	3.5	184
31	Inhibition of NADPH Oxidase Activation in Endothelial Cells by ortho -Methoxy-Substituted Catechols. Endothelium: Journal of Endothelial Cell Research, 2002, 9, 191-203.	1.7	175
32	Enzymatic analyses in organic solvents. Biotechnology and Bioengineering, 1986, 28, 417-421.	3.3	172
33	Synthesis and Application of Carbohydrate-Containing Polymers. Chemistry of Materials, 2002, 14, 3232-3244.	6.7	172
34	Structure, Function, and Stability of Enzymes Covalently Attached to Single-Walled Carbon Nanotubes. Langmuir, 2007, 23, 12318-12321.	3.5	171
35	Aromatic Small Molecules Remodel Toxic Soluble Oligomers of Amyloid Î² through Three Independent Pathways. Journal of Biological Chemistry, 2011, 286, 3209-3218.	3.4	169
36	Metabolizing enzyme toxicology assay chip (MetaChip) for high-throughput microscale toxicity analyses. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 983-987.	7.1	166

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37	Lysostaphin-functionalized cellulose fibers with antistaphylococcal activity for wound healing applications. Biomaterials, 2011, 32, 9557-9567.	11.4	163
38	Enzymeâ”Polymerâ”Single Walled Carbon Nanotube Composites as Biocatalytic Films. Nano Letters, 2003, 3, 829-832.	9.1	161
39	Electrospinning of Nanomaterials and Applications in Electronic Components and Devices. Journal of Nanoscience and Nanotechnology, 2010, 10, 5507-5519.	0.9	160
40	Heparin and anticoagulation. Frontiers in Bioscience - Landmark, 2016, 21, 1372-1392.	3.0	156
41	Water-soluble carbon nanotube-enzyme conjugates as functional biocatalytic formulations. Biotechnology and Bioengineering, 2006, 95, 804-811.	3.3	154
42	Spaceflight Promotes Biofilm Formation by Pseudomonas aeruginosa. PLoS ONE, 2013, 8, e62437.	2.5	153
43	Glycosaminoglycans in infectious disease. Biological Reviews, 2013, 88, 928-943.	10.4	152
44	Aqueous-Like Activity of .alpha.-Chymotrypsin Dissolved in Nearly Anhydrous Organic Solvents. Journal of the American Chemical Society, 1994, 116, 5009-5010.	13.7	150
45	Enzymatic synthesis of a sucrose-containing linear polyester in nearly anhydrous organic media. Biotechnology and Bioengineering, 1991, 37, 639-646.	3.3	149
46	Polymerâ€“Nanotubeâ€“Enzyme Composites as Active Antifouling Films. Small, 2007, 3, 50-53.	10.0	140
47	Catalytic Silica Particles via Template-Directed Molecular Imprinting. Langmuir, 2000, 16, 1759-1765.	3.5	138
48	Osmolyte Trimethylamine-N-Oxide Does Not Affect the Strength of Hydrophobic Interactions: Origin of Osmolyte Compatibility. Biophysical Journal, 2005, 89, 858-866.	0.5	138
49	On the Salt-Induced Activation of Lyophilized Enzymes in Organic Solvents:Â Effect of Salt Kosmotropicity on Enzyme Activity. Journal of the American Chemical Society, 2000, 122, 1565-1571.	13.7	135
50	Nanostructured glycan architecture is important in the inhibition of influenza A virus infection. Nature Nanotechnology, 2017, 12, 48-54.	31.5	131
51	Mechanism of extraction of chymotrypsin into isooctane at very low concentrations of aerosol OT in the absence of reversed micelles. Biotechnology and Bioengineering, 1994, 43, 529-540.	3.3	127
52	Facile pretreatment of lignocellulosic biomass at high loadings in room temperature ionic liquids. Biotechnology and Bioengineering, 2011, 108, 2865-2875.	3.3	126
53	Biocatalytic plastics as active and stable materials for biotransformations. Nature Biotechnology, 1997, 15, 789-793.	17.5	124
54	Unusual Thermal Stability of Soybean Peroxidase. Biotechnology Progress, 1996, 12, 555-558.	2.6	123

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55	Microwave assisted combinatorial chemistry synthesis of substituted pyridines. Tetrahedron Letters, 1998, 39, 1117-1120.	1.4	123
56	Structure and Function of Subtilisin BPNâ€˜ Solubilized in Organic Solvents. Journal of the American Chemical Society, 1997, 119, 70-76.	13.7	119
57	Nanoparticle-Mediated Cytoplasmic Delivery of Proteins To Target Cellular Machinery. ACS Nano, 2010, 4, 1493-1500.	14.6	119
58	Nanotubes in biological applications. Current Opinion in Biotechnology, 2014, 28, 25-32.	6.6	119
59	Macroporous poly(sucrose acrylate) hydrogel for controlled release of macromolecules. Biomaterials, 1996, 17, 2343-2350.	11.4	114
60	Multienzymic Synthesis of Poly(hydroquinone) for Use as a Redox Polymer. Journal of the American Chemical Society, 1995, 117, 12885-12886.	13.7	111
61	Electrospinning from room temperature ionic liquids for biopolymer fiber formation. Green Chemistry, 2010, 12, 1883.	9.0	109
62	Highly Active and Stable DNAzymeâ€’Carbon Nanotube Hybrids. Journal of the American Chemical Society, 2005, 127, 12200-12201.	13.7	108
63	E. coli K5 fermentation and the preparation of heparosan, a bioengineered heparin precursor. Biotechnology and Bioengineering, 2010, 107, 964-973.	3.3	106
64	Engineering of routes to heparin and related polysaccharides. Applied Microbiology and Biotechnology, 2012, 93, 1-16.	3.6	106
65	Recent progress and applications in glycosaminoglycan and heparin research. Current Opinion in Chemical Biology, 2009, 13, 633-640.	6.1	103
66	Interaction of Zika Virus Envelope Protein with Glycosaminoglycans. Biochemistry, 2017, 56, 1151-1162.	2.5	102
67	Biocatalytic synthesis of sugar-containing polyacrylate-based hydrogels. Macromolecules, 1992, 25, 7081-7085.	4.8	101
68	Enzymatically Derived Sugar-Containing Self-Assembled Organogels with Nanostructured Morphologies. Angewandte Chemie - International Edition, 2006, 45, 4772-4775.	13.8	101
69	Antistaphylococcal Nanocomposite Films Based on Enzymeâ€’Nanotube Conjugates. ACS Nano, 2010, 4, 3993-4000.	14.6	101
70	Enzymeâ€Based Nanoscale Composites for Use as Active Decontamination Surfaces. Advanced Functional Materials, 2010, 20, 392-398.	14.9	99
71	Controlling enzyme-catalyzed regioselectivity in sugar ester synthesis. Biotechnology and Bioengineering, 1995, 45, 426-434.	3.3	98
72	Optimizing the salt-induced activation of enzymes in organic solvents: Effects of lyophilization time and water content. , 1999, 63, 233-241.		98

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73	Engineering Nanomaterials for Biomedical Applications Requires Understanding the Nano-Bio Interface: A Perspective. Journal of Physical Chemistry Letters, 2012, 3, 3149-3158.	4.6	98
74	Tailoring lipase specificity by solvent and substrate chemistries. Journal of Organic Chemistry, 1993, 58, 3238-3244.	3.2	97
75	Chemoenzymatic synthesis of novel sucrose-containing polymers. Macromolecules, 1991, 24, 3462-3463.	4.8	94
76	Free energy relationships of substrate and solvent hydrophobicities on enzymic catalysis in organic media. Journal of the American Chemical Society, 1989, 111, 8026-8027.	13.7	92
77	Threeâ€dimensional cell culture microarray for highâ€throughput studies of stem cell fate. Biotechnology and Bioengineering, 2010, 106, 106-118.	3.3	92
78	Controlling Subtilisin Activity and Selectivity in Organic Media by Imprinting with Nucleophilic Substrates. Journal of the American Chemical Society, 1997, 119, 3245-3252.	13.7	90
79	Directed Assembly of Carbon Nanotubes at Liquidâ"Liquid Interfaces:Â Nanoscale Conveyors for Interfacial Biocatalysis. Journal of the American Chemical Society, 2006, 128, 1046-1047.	13.7	90
80	Synthesis of Water-Soluble Paclitaxel Derivatives by Enzymatic Acylation. Journal of the American Chemical Society, 1997, 119, 11554-11555.	13.7	89
81	Catalytic properties and potential of an extracellular protease from an extreme halophile. Enzyme and Microbial Technology, 1994, 16, 266-275.	3.2	88
82	Lignin peroxidase-type activity of soybean peroxidase. Enzyme and Microbial Technology, 1995, 17, 359-365.	3.2	87
83	Enzyme-catalyzed synthesis of sugar-containing monomers and linear polymers. Biotechnology and Bioengineering, 2000, 70, 208-216.	3.3	86
84	Combinatorial biocatalysis: a natural approach to drug discovery. Trends in Biotechnology, 1998, 16, 210-215.	9.3	85
85	Identification of a novel class in the ?/? hydrolase fold superfamily: The N-myc differentiation-related proteins. Proteins: Structure, Function and Bioinformatics, 2002, 47, 163-168.	2.6	83
86	Influence of a three-dimensional, microarray environment on human Cell culture in drug screening systems. Biomaterials, 2012, 33, 9087-9096.	11.4	83
87	Gene Delivery in Three-Dimensional Cell Cultures by Superparamagnetic Nanoparticles. ACS Nano, 2010, 4, 4733-4743.	14.6	80
88	Conductive Cable Fibers with Insulating Surface Prepared by Coaxial Electrospinning of Multiwalled Nanotubes and Cellulose. Biomacromolecules, 2010, 11, 2440-2445.	5.4	79
89	Unusual salt and solvent dependence of a protease from an extreme halophile. , 1997, 55, 471-479.		76
90	Enzymatic and chemoenzymatic approaches to polymer synthesis. Trends in Biotechnology, 1992, 10, 287-293.	9.3	75

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91	High-throughput and combinatorial gene expression on a chip for metabolism-induced toxicology screening. Nature Communications, 2014, 5, 3739.	12.8	75
92	Silica-immobilized enzymes for multi-step synthesis in microfluidic devices. Biotechnology and Bioengineering, 2007, 98, 701-705.	3.3	73
93	Enzymatic synthesis of dextran-containing hydrogels. Biomaterials, 2002, 23, 3957-3967.	11.4	72
94	On-Chip, Cell-Based Microarray Immunofluorescence Assay for High-Throughput Analysis of Target Proteins. Analytical Chemistry, 2008, 80, 6633-6639.	6.5	72
95	Cell-Based Assay Design for High-Content Screening of Drug Candidates. Journal of Microbiology and Biotechnology, 2016, 26, 213-225.	2.1	72
96	Ultra-performance ion-pairing liquid chromatography with on-line electrospray ion trap mass spectrometry for heparin disaccharide analysis. Analytical Biochemistry, 2011, 415, 59-66.	2.4	66
97	Horseradish peroxidase-catalyzed hydroxylations: mechanistic studies. Biochemistry, 1986, 25, 2946-2951.	2.5	65
98	Biocatalytic synthesis of highly ordered degradable dextran-based hydrogels. Biomaterials, 2005, 26, 4707-4716.	11.4	65
99	Toward an Artificial Golgi: Redesigning the Biological Activities of Heparan Sulfate on a Digital Microfluidic Chip. Journal of the American Chemical Society, 2009, 131, 11041-11048.	13.7	65
100	Siloxane-based biocatalytic films and paints for use as reactive coatings. Biotechnology and Bioengineering, 2001, 72, 475-482.	3.3	64
101	Effect of gold nanoparticle structure on the conformation and function of adsorbed proteins. Biomaterials, 2012, 33, 8503-8516.	11.4	64
102	Metabolic engineering and in vitro biosynthesis of phytochemicals and non-natural analogues. Plant Science, 2013, 210, 10-24.	3.6	64
103	Enzymatic polymerization of phenols in room-temperature ionic liquids. Journal of Molecular Catalysis B: Enzymatic, 2009, 59, 177-184.	1.8	63
104	Transition state stabilization of subtilisins in organic media. Biotechnology and Bioengineering, 1994, 43, 515-520.	3.3	62
105	Multienzyme catalysis in microfluidic biochips. Biotechnology and Bioengineering, 2003, 83, 20-28.	3.3	62
106	Structural characterization of heparins from different commercial sources. Analytical and Bioanalytical Chemistry, 2011, 401, 2793-2803.	3.7	62
107	Lipid-Based Nanotubes as Functional Architectures with Embedded Fluorescence and Recognition Capabilities. Journal of the American Chemical Society, 2004, 126, 15012-15013.	13.7	61
108	Enzymic Modification of Insoluble Amylose in Organic Solvents. Macromolecules, 1995, 28, 8881-8883.	4.8	60

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109	Combinatorial formulation of biocatalyst preparations for increased activity in organic solvents: Salt activation of penicillin amidase. Biotechnology and Bioengineering, 2004, 85, 553-560.	3.3	59
110	Combinatorial one-pot chemoenzymatic synthesis of heparin. Carbohydrate Polymers, 2015, 122, 399-407.	10.2	59
111	Regioselective enzymatic acylation as a tool for producing solution-phase combinatorial libraries. Tetrahedron, 1998, 54, 3971-3982.	1.9	58
112	Enhanced Stability of Enzymes Adsorbed onto Nanoparticles. Journal of Nanoscience and Nanotechnology, 2007, 7, 1675-1678.	0.9	58
113	Enzymatic Synthesis of Unique Thymidine-Containing Polyphenols. Macromolecules, 1998, 31, 941-943.	4.8	57
114	Position-Specific Chemical Modification and Quantitative Proteomics Disclose Protein Orientation Adsorbed on Silica Nanoparticles. Nano Letters, 2012, 12, 1583-1587.	9.1	57
115	Three dimensional cellular microarray platform for human neural stem cell differentiation and toxicology. Stem Cell Research, 2014, 13, 36-47.	0.7	57
116	Regulation of stem cell signaling by nanoparticle-mediated intracellular protein delivery. Biomaterials, 2011, 32, 3210-3219.	11.4	56
117	Carbon Nanotube-Induced Loss of Multicellular Chirality on Micropatterned Substrate Is Mediated by Oxidative Stress. ACS Nano, 2014, 8, 2196-2205.	14.6	56
118	Protein and solvent engineering of subtilisin BPN' in nearly anhydrous organic media. Journal of the American Chemical Society, 1993, 115, 12231-12237.	13.7	55
119	Chemoenzymic Synthesis and Characterization of Poly(.alpha.-methyl galactoside 6-acrylate) Hydrogels. Macromolecules, 1995, 28, 6014-6019.	4.8	55
120	High-Throughput Toxicity and Phenotypic Screening of 3D Human Neural Progenitor Cell Cultures on a Microarray Chip Platform. Stem Cell Reports, 2016, 7, 970-982.	4.8	55
121	Molecular dynamics simulation of C8E5micelle in explicit water: structure and hydrophobic solvation thermodynamics. Molecular Physics, 2002, 100, 2299-2306.	1.7	54
122	Highly swelling hydrogels from ordered galactose-based polyacrylates. Biomaterials, 1998, 19, 69-76.	11.4	53
123	Sugar acrylate-based polymers as chiral molecularly imprintable hydrogels. Journal of Polymer Science Part A, 1999, 37, 1665-1671.	2.3	53
124	Incorporation of p-cresol into lignins via peroxidase-catalysed copolymerization in nonaqueous media. Enzyme and Microbial Technology, 1991, 13, 964-968.	3.2	52
125	Biocompatibility of chemoenzymatically derived dextran-acrylate hydrogels. Journal of Biomedical Materials Research Part B, 2004, 68A, 584-596.	3.1	52
126	The Role of the Methoxyphenol Apocynin, a Vascular NADPH Oxidase Inhibitor, as a Chemopreventative Agent in the Potential Treatment of Cardiovascular Diseases. Current Vascular Pharmacology, 2008, 6, 204-217.	1.7	52

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127	Combinatorial array-based enzymatic polyester synthesis. Biotechnology and Bioengineering, 2001, 76, 200-206.	3.3	51
128	Polyphenolic Glycosides and Aglycones Utilize Opposing Pathways To Selectively Remodel and Inactivate Toxic Oligomers of Amyloid Î². ChemBioChem, 2011, 12, 1749-1758.	2.6	51
129	Towards more active biocatalysts in organic media: Increasing the activity of salt-activated enzymes. Biotechnology and Bioengineering, 2001, 75, 187-196.	3.3	50
130	Nonaqueous Biocatalytic Synthesis of New Cytotoxic Doxorubicin Derivatives:Â Exploiting Unexpected Differences in the Regioselectivity of Salt-Activated and Solubilized Subtilisin. Journal of the American Chemical Society, 2002, 124, 1871-1876.	13.7	50
131	Numerical and Monte Carlo simulations of phenolic polymerizations catalyzed by peroxidase. Biotechnology and Bioengineering, 1993, 42, 807-814.	3.3	49
132	Preparation of Active and Stable Biocatalytic Hydrogels for Use in Selective Transformations. Chemistry of Materials, 1998, 10, 955-958.	6.7	49
133	Water dynamics and salt-activation of enzymes in organic media: Mechanistic implications revealed by NMR spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5706-5710.	7.1	49
134	Control of the heparosan N-deacetylation leads to an improved bioengineered heparin. Applied Microbiology and Biotechnology, 2011, 91, 91-99.	3.6	49
135	Recent advances in sulfotransferase enzyme activity assays. Analytical and Bioanalytical Chemistry, 2012, 403, 1491-1500.	3.7	49
136	Selective Killing of Pathogenic Bacteria by Antimicrobial Silver Nanoparticleâ€"Cell Wall Binding Domain Conjugates. ACS Applied Materials & Interfaces, 2018, 10, 13317-13324.	8.0	49
137	Purification of glycoproteins by selective transport using concanavalin-mediated reverse micellar extraction. Biotechnology Progress, 1991, 7, 330-334.	2.6	48
138	Peroxidase-catalyzed synthesis of ligninâ€“phenol copolymers. Journal of Polymer Science Part A, 1993, 31, 1839-1846.	2.3	48
139	Proteinâ€Directed Formation of Silver Nanoparticles on Carbon Nanotubes. Advanced Materials, 2007, 19, 3167-3170.	21.0	48
140	Preparation of synthetic wood composites using ionic liquids. Wood Science and Technology, 2011, 45, 719-733.	3.2	48
141	Escherichia coliK5 heparosan fermentation and improvement by genetic engineering. Bioengineered Bugs, 2011, 2, 63-67.	1.7	48
142	Affinity-based reverse micellar extraction and separation (ARMES): A facile technique for the purification of peroxidase from soybean hulls. Biotechnology Progress, 1993, 9, 199-203.	2.6	47
143	Bacterial P450-catalyzed polyketide hydroxylation on a microfluidic platform. Biotechnology and Bioengineering, 2004, 88, 528-535.	3.3	47
144	Enzyme-Based Listericidal Nanocomposites. Scientific Reports, 2013, 3, 1584.	3.3	47

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145	High-throughput screening and quantitative structure-efficacy relationship models of potential displacer molecules for ion-exchange systems. Biotechnology and Bioengineering, 2002, 80, 60-72.	3.3	46
146	Chemoenzymatic Synthesis and High-Throughput Screening of an Aminoglycosideâ˜'Polyamine Library:Â Identification of High-Affinity Displacers and DNA-Binding Ligands. Journal of the American Chemical Society, 2004, 126, 12306-12315.	13.7	46
147	Analysis of E. coli K5 capsular polysaccharide heparosan. Analytical and Bioanalytical Chemistry, 2011, 399, 737-745.	3.7	46
148	Enzymatically prepared poly(hydroquinone) as a mediator for amperometric glucose sensors. Polymer, 1998, 39, 123-127.	3.8	45
149	High-throughput human metabolism and toxicity analysis. Current Opinion in Biotechnology, 2006, 17, 619-627.	6.6	45
150	Tubulin Encapsulation of Carbon Nanotubes into Functional Hybrid Assemblies. Small, 2009, 5, 310-315.	10.0	45
151	Antimicrobial mechanism of resveratrolâ€transâ€dihydrodimer produced from peroxidaseâ€catalyzed oxidation of resveratrol. Biotechnology and Bioengineering, 2015, 112, 2417-2428.	3.3	45
152	Enzymatic Synthesis of Various Aromatic Polyesters in Anhydrous Organic Solvents. Biocatalysis, 1994, 11, 263-271.	0.9	44
153	Intrinsic effects of solvent polarity on enzymic activation energies. Biotechnology and Bioengineering, 2000, 67, 112-116.	3.3	44
154	Enzymatic Synthesis of Glycosaminoglycan Heparin. Seminars in Thrombosis and Hemostasis, 2007, 33, 453-465.	2.7	44
155	Testing for diffusion limitations in salt-activated enzyme catalysts operating in organic solvents. , 1998, 58, 654-657.		43
156	High-Throughput, Microarray-Based Synthesis of Natural Product Analogues via in Vitro Metabolic Pathway Construction. ACS Chemical Biology, 2007, 2, 419-425.	3.4	43
157	Biochemical strategies for enhancing the in vivo production of natural products with pharmaceutical potential. Current Opinion in Biotechnology, 2014, 25, 86-94.	6.6	43
158	Carbonic anhydrase for CO2 capture, conversion and utilization. Current Opinion in Biotechnology, 2022, 74, 230-240.	6.6	43
159	Molecular Imprinting of Enzymes with Water-Insoluble Ligands for Nonaqueous Biocatalysis. Journal of the American Chemical Society, 2002, 124, 5254-5255.	13.7	42
160	Fabrication of enzyme-based coatings on intact multi-walled carbon nanotubes as highly effective electrodes in biofuel cells. Scientific Reports, 2017, 7, 40202.	3.3	42
161	Oxidation of Polycyclic Aromatic Hydrocarbons Catalyzed by Soybean Peroxidase. Applied Biochemistry and Biotechnology, 1999, 80, 221-230.	2.9	41
162	Structural Diversity of Peroxidase-Catalyzed Oxidation Products ofo-Methoxyphenols. Organic Letters, 2004, 6, 1975-1978.	4.6	41

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163	Changes in glycosaminoglycan structure on differentiation of human embryonic stem cells towards mesoderm and endoderm lineages. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 1993-2003.	2.4	41
164	Analysis of Heparins Derived From Bovine Tissues and Comparison to Porcine Intestinal Heparins. Clinical and Applied Thrombosis/Hemostasis, 2016, 22, 520-527.	1.7	41
165	Non-aqueous enzymology. Current Opinion in Biotechnology, 1991, 2, 401-407.	6.6	40
166	Compression-Modulated Tunable-Pore Carbon-Nanotube Membrane Filters. Small, 2007, 3, 595-599.	10.0	40
167	Multinuclear NMR study of enzyme hydration in an organic solvent. , 1998, 57, 686-693.		39
168	Human parvovirus B19 virus-like particles: InÂvitro assembly and stability. Biochimie, 2012, 94, 870-878.	2.6	39
169	Improved strategies for electrochemical 1,4-NAD(P)H2 regeneration: A new era of bioreactors for industrial biocatalysis. Biotechnology Advances, 2018, 36, 120-131.	11.7	39
170	Substrate Profile Analysis and ACP-Mediated Acyl Transfer inStreptomyces coelicolor Type III Polyketide Synthases. ChemBioChem, 2007, 8, 863-868.	2.6	38
171	Electrospun Polyvinylpyrrolidone Fibers with High Concentrations of Ferromagnetic and Superparamagnetic Nanoparticles. ACS Applied Materials & Interfaces, 2011, 3, 1958-1964.	8.0	38
172	3D tumor spheroid microarray for high-throughput, high-content natural killer cell-mediated cytotoxicity. Communications Biology, 2021, 4, 893.	4.4	38
173	Sucrose diacrylate: A unique chemically and biologically degradable crosslinker for polymeric hydrogels. Journal of Polymer Science Part A, 1997, 35, 2221-2229.	2.3	37
174	High cell density cultivation of a recombinant E. coli strain expressing a key enzyme in bioengineered heparin production. Applied Microbiology and Biotechnology, 2013, 97, 3893-3900.	3.6	37
175	Enzymatic derivatization of saccharides and their chemical polymerization. Tetrahedron: Asymmetry, 1993, 4, 1221-1228.	1.8	36
176	Peptide synthesis using proteases dissolved in organic solvents. Enzyme and Microbial Technology, 1997, 20, 623-628.	3.2	36
177	Enzyme-Immobilized Chitosan Nanoparticles as Environmentally Friendly and Highly Effective Antimicrobial Agents. Biomacromolecules, 2019, 20, 2477-2485.	5.4	36
178	Chemoenzymatic synthesis of linear poly(sucrose acrylate): Optimization of enzyme activity and polymerization conditions. Macromolecular Chemistry and Physics, 1994, 195, 3567-3578.	2.2	35
179	The evolution of biotransformation technologies. Current Opinion in Microbiology, 1998, 1, 311-318.	5.1	35
180	How Interfaces Affect Hydrophobically Driven Polymer Folding. Journal of Physical Chemistry B, 2009, 113, 4093-4101.	2.6	35

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181	Laccase- and chloroperoxidase-nanotube paint composites with bactericidal and sporicidal activity. Enzyme and Microbial Technology, 2012, 50, 271-279.	3.2	35
182	Heavy Heparin: A Stable Isotopeâ€Enriched, Chemoenzymaticallyâ€Synthesized, Polyâ€Component Drug. Angewandte Chemie - International Edition, 2019, 58, 5962-5966.	13.8	35
183	Complete biosynthesis of a sulfated chondroitin in Escherichia coli. Nature Communications, 2021, 12, 1389.	12.8	35
184	Development of a Fluorescence-Based, Ultra High-Throughput Screening Platform for Nanoliter-Scale Cytochrome P450 Microarrays. Journal of Biomolecular Screening, 2009, 14, 668-678.	2.6	34
185	Inhibition of human vascular NADPH oxidase by apocynin derived oligophenols. Bioorganic and Medicinal Chemistry, 2009, 17, 5146-5152.	3.0	34
186	Affinity capillary electrophoresis employing immobilized glycosaminoglycan to resolve heparin-binding peptides. Electrophoresis, 1998, 19, 437-441.	2.4	32
187	Enzymatic nitration of phenols. Journal of Molecular Catalysis B: Enzymatic, 2001, 15, 55-64.	1.8	32
188	Engineered heparins as new anticoagulant drugs. Bioengineering and Translational Medicine, 2017, 2, 17-30.	7.1	32
189	Dipole Formation and Solvent Electrostriction in Subtilisin Catalysis. Journal of the American Chemical Society, 1997, 119, 9331-9335.	13.7	31
190	Protein-containing hydrophobic coatings and films. Biomaterials, 2002, 23, 441-448.	11.4	31
191	Solid-phase peptide synthesis by ion-paired ?-chymotrypsin in nonaqueous media. Biotechnology and Bioengineering, 2003, 81, 809-817.	3.3	31
192	Active-Site Motions and Polarity Enhance Catalytic Turnover of Hydrated Subtilisin Dissolved in Organic Solvents. Journal of the American Chemical Society, 2009, 131, 4294-4300.	13.7	31
193	Advancing Predictive Hepatotoxicity at the Intersection of Experimental, in Silico, and Artificial Intelligence Technologies. Chemical Research in Toxicology, 2018, 31, 412-430.	3.3	31
194	Flexible Peptide Linkers Enhance the Antimicrobial Activity of Surface-Immobilized Bacteriolytic Enzymes. ACS Applied Materials & Interfaces, 2018, 10, 36746-36756.	8.0	31
195	Active-site titration of serine proteases in organic solvents. , 1996, 50, 329-335.		30
196	Biocatalyst activity in nonaqueous environments correlates with centisecond-range protein motions. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15672-15677.	7.1	30
197	Response surface optimization of the heparosan N-deacetylation in producing bioengineered heparin. Journal of Biotechnology, 2011, 156, 188-196.	3.8	30
198	Growth inhibition of Mycobacterium smegmatis by mycobacteriophage-derived enzymes. Enzyme and Microbial Technology, 2014, 63, 1-6.	3.2	30

#	Article	IF	Citations
199	Anti-SARS-CoV-2 Activity of Rhamnan Sulfate from Monostroma nitidum. Marine Drugs, 2021, 19, 685.	4.6	30
200	Polymers from biocatalysts. Korean Journal of Chemical Engineering, 1998, 15, 362-374.	2.7	29
201	Extraordinary enantiospecificity of lipase catalysis in organic media induced by purification and catalyst engineering. , 2000, 52, 296-300.		29
202	Expanding nature's small molecule diversity via in vitro biosynthetic pathway engineering. Current Opinion in Chemical Biology, 2012, 16, 186-195.	6.1	29
203	FGFâ€“FGFR Signaling Mediated through Glycosaminoglycans in Microtiter Plate and Cell-Based Microarray Platforms. Biochemistry, 2013, 52, 9009-9019.	2.5	29
204	Suspended and Immobilized Chymotrypsin in Organic Media: Structure-Function Relationships Revealed by Electron Spin Resonance Spectroscopy. Journal of the American Chemical Society, 1995, 117, 8435-8440.	13.7	28
205	Enzymatically generated polyphenols as array-based metal-ion sensors. Analytica Chimica Acta, 1998, 370, 251-258.	5.4	28
206	Soybean peroxidase as an effective bromination catalystâ˜†. Enzyme and Microbial Technology, 2000, 26, 337-341.	3.2	28
207	Enzymeâ€“Carbon Nanotube Conjugates in Room-temperature Ionic Liquids. Applied Biochemistry and Biotechnology, 2007, 143, 153-163.	2.9	28
208	Identifying Specific Protein Residues That Guide Surface Interactions and Orientation on Silica Nanoparticles. Langmuir, 2013, 29, 10841-10849.	3.5	28
209	BioNano engineered hybrids for hypochlorous acid generation. Process Biochemistry, 2013, 48, 1355-1360.	3.7	28
210	Exposure to Carbon Nanotubes Leads to Changes in the Cellular Biomechanics. Advanced Healthcare Materials, 2013, 2, 945-951.	7.6	28
211	Glycosaminoglycan Compositional Analysis of Relevant Tissues in Zika Virus Pathogenesis and in Vitro Evaluation of Heparin as an Antiviral against Zika Virus Infection. Biochemistry, 2019, 58, 1155-1166.	2.5	28
212	Protease-Containing Silicates as Active Antifouling Materials. Biotechnology Progress, 2002, 18, 551-555.	2.6	27
213	Bioinformatics-driven, rational engineering of protein thermostability. Protein Engineering, Design and Selection, 2006, 19, 517-524.	2.1	27
214	Enzyme-facilitated transport and separation of organic acids through liquid membranes. Journal of the American Chemical Society, 1990, 112, 1649-1650.	13.7	26
215	Pressure affects enzyme function in organic media. Biotechnology and Bioengineering, 1993, 42, 772-776.	3.3	26
216	Highly Enantioselective Oxidation ofcis-Cyclopropylmethanols to Corresponding Aldehydes Catalyzed by Chloroperoxidase. Journal of Organic Chemistry, 2002, 67, 314-317.	3.2	26

#	Article	IF	Citations
217	Chloroperoxidase-catalyzed Epoxidation of Styrene in Aqueous and Nonaqueous Media. Biocatalysis and Biotransformation, 2002, 20, 265-274.	2.0	26
218	A combinatorial biocatalysis approach to an array of cholic acid derivatives. Biotechnology and Bioengineering, 2003, 81, 391-396.	3.3	26
219	Chip-Based Polyketide Biosynthesis and Functionalization. Biotechnology Progress, 2006, 22, 1102-1107.	2.6	26
220	In Vitro Precursor-Directed Synthesis of Polyketide Analogues with Coenzyme A Regeneration for the Development of Antiangiogenic Agents. Organic Letters, 2009, 11, 3806-3809.	4.6	26
221	Trimer hydroxylated quinone derived from apocynin targets cysteine residues of p47phox preventing the activation of human vascular NADPH oxidase. Free Radical Biology and Medicine, 2012, 52, 962-969.	2.9	26
222	Enzyme-based formulations for decontamination: current state and perspectives. Applied Microbiology and Biotechnology, 2013, 97, 3293-3300.	3.6	26
223	Fibroblast Growth Factor-based Signaling through Synthetic Heparan Sulfate Blocks Copolymers Studied Using High Cell Density Three-dimensional Cell Printing. Journal of Biological Chemistry, 2014, 289, 9754-9765.	3.4	26
224	Reducing Staphylococcus aureus resistance to lysostaphin using CRISPRâ€dCas9. Biotechnology and Bioengineering, 2019, 116, 3149-3159.	3.3	26
225	Sugar-containing Polyamines Prepared Using Galactose Oxidase Coupled with Chemical Reduction. Journal of the American Chemical Society, 1999, 121, 466-467.	13.7	25
226	Enzymatic Synthesis of Inulin-Containing Hydrogels. Biomacromolecules, 2002, 3, 333-341.	5.4	25
227	Exploiting the Reaction Flexibility of a Type III Polyketide Synthase through in Vitro Pathway Manipulation. Journal of the American Chemical Society, 2005, 127, 64-65.	13.7	25
228	Immobilized enzymes to convert N-sulfo, N-acetyl heparosan to a critical intermediate in the production of bioengineered heparin. Journal of Biotechnology, 2013, 167, 241-247.	3.8	25
229	Metabolic engineering of Bacillus megaterium for heparosan biosynthesis using Pasteurella multocida heparosan synthase, PmHS2. Microbial Cell Factories, 2019, 18, 132.	4.0	25
230	Highâ€throughput identification of factors promoting neuronal differentiation of human neural progenitor cells in microscale 3D cell culture. Biotechnology and Bioengineering, 2019, 116, 168-180.	3.3	25
231	Highly Sensitive Immuno-CRISPR Assay for CXCL9 Detection. Analytical Chemistry, 2021, 93, 16528-16534.	6.5	25
232	Peroxidase-catalyzed polymerization and depolymerization of coal in organic solvents. Applied Biochemistry and Biotechnology, 1994, 49, 153-164.	2.9	24
233	Direct solubilization of enzyme aggregates with enhanced activity in nonaqueous media. Biotechnology and Bioengineering, 2007, 96, 1030-1039.	3.3	24
234	Perhydrolase-nanotube-paint sporicidal composites stabilized by intramolecular crosslinking. Journal of Molecular Catalysis B: Enzymatic, 2012, 75, 20-26.	1.8	24

#	Article	IF	Citations
235	Prediction of metabolism-induced hepatotoxicity on three-dimensional hepatic cell culture and enzyme microarrays. Archives of Toxicology, 2018, 92, 1295-1310.	4.2	24
236	A strategy for in vivo screening of subtilisin E reaction specificity inE. coli periplasm. Biotechnology and Bioengineering, 2002, 78, 761-769.	3.3	23
237	Investigation of DNA-Binding Properties of an Aminoglycoside-Polyamine Library Using Quantitative Structureâ^'Activity Relationship (QSAR) Models. Journal of Chemical Information and Modeling, 2005, 45, 1854-1863.	5.4	23
238	Controlled photochemical depolymerization of K5 heparosan, a bioengineered heparin precursor. Carbohydrate Polymers, 2011, 86, 1365-1370.	10.2	23
239	Proteoglycans in stem cells. Biotechnology and Applied Biochemistry, 2012, 59, 65-76.	3.1	23
240	Wall Teichoic Acids Are Involved in the Medium-Induced Loss of Function of the Autolysin CD11 against Clostridium difficile. Scientific Reports, 2016, 6, 35616.	3.3	23
241	Rapid synthesis of fatty acid esters for use as potential food flavors. JAOCS, Journal of the American Oil Chemists' Society, 1998, 75, 1109-1113.	1.9	22
242	Preparation, Characterization, and Optimization of an In Vitro C 30 Carotenoid Pathway. Applied and Environmental Microbiology, 2005, 71, 6578-6583.	3.1	22
243	The lipaseâ€catalyzed hydrolysis of lutein diesters in nonâ€aqueous media is favored at extremely low water activities. Biotechnology and Bioengineering, 2007, 98, 535-542.	3.3	22
244	Stem cell behavior on tailored porous oxide surface coatings. Biomaterials, 2015, 55, 96-109.	11.4	22
245	Enhancing Protein Stability by Adsorption onto Raftlike Lipid Domains. Journal of the American Chemical Society, 2009, 131, 7107-7111.	13.7	21
246	Signal Amplification by Glycoâ€qPCR for Ultrasensitive Detection of Carbohydrates: Applications in Glycobiology. Angewandte Chemie - International Edition, 2012, 51, 11800-11804.	13.8	21
247	Characterization of AmiBA2446, a Novel Bacteriolytic Enzyme Active against Bacillus Species. Applied and Environmental Microbiology, 2013, 79, 5899-5906.	3.1	21
248	Uncovering a possible role of reactive oxygen species in magnetogenetics. Scientific Reports, 2020, 10, 13096.	3.3	21
249	Exploiting CRISPR Cas9 in Three-Dimensional Stem Cell Cultures to Model Disease. Frontiers in Bioengineering and Biotechnology, 2020, 8, 692.	4.1	21
250	Enzymatic Reactions in Liquid and Solid Paraffins: Application for Enzymeâ€"Based Temperature Abuse Sensors. Bio/technology, 1986, 4, 997-999.	1.5	20
251	Penicillin amidase is activated for use in nonaqueous media by lyophilizing in the presence of potassium chloride. Enzyme and Microbial Technology, 2002, 31, 193-197.	3.2	20
252	In Vitro Transcription and Protein Translation from Carbon Nanotubeâ€"DNA Assemblies. Small, 2006, 2, 718-722.	10.0	20

#	Article	IF	Citations
253	Perhydrolase-nanotube paint composites with sporicidal and antiviral activity. Applied Microbiology and Biotechnology, 2013, 97, 8813-8821.	3.6	20
254	Newly identified bacteriolytic enzymes that target a wide range of clinical isolates of Clostridium difficile. Biotechnology and Bioengineering, 2016, 113, 2568-2576.	3.3	20
255	Immobilization of glucose oxidase on graphene oxide for highly sensitive biosensors. Biotechnology and Bioprocess Engineering, 2016, 21, 573-579.	2.6	20
256	Biocatalytic Nanocomposites for Combating Bacterial Pathogens. Annual Review of Chemical and Biomolecular Engineering, 2017, 8, 87-113.	6.8	20
257	Potential Anti-SARS-CoV-2 Activity of Pentosan Polysulfate and Mucopolysaccharide Polysulfate. Pharmaceuticals, 2022, 15, 258.	3.8	20
258	Rapid synthesis of fatty acid esters for use as potential food flavors. JAOCS, Journal of the American Oil Chemists' Society, 1998, 75, 1109-1113.	1.9	19
259	Investigating the effects of polymer chemistry on activity of biocatalytic plastic materials. , 2000, 68, 665-671.		19
260	Optimization of ion-paired lipase for non-aqueous media: acylation of doxorubicin based on surface models of fatty acid esterification. Enzyme and Microbial Technology, 2002, 31, 10-19.	3.2	19
261	Dramatic Solvent and Hydration Effects on the Transition State of Soybean Peroxidase. Journal of the American Chemical Society, 2006, 128, 14272-14273.	13.7	19
262	Signal amplification of target protein on heparin glycan microarray. Analytical Biochemistry, 2008, 383, 116-121.	2.4	19
263	Enzymeâ€driven bacillus spore coat degradation leading to spore killing. Biotechnology and Bioengineering, 2014, 111, 654-663.	3.3	19
264	Enzymatic Generation of Highly Anticoagulant Bovine Intestinal Heparin. Journal of Medicinal Chemistry, 2017, 60, 8673-8679.	6.4	19
265	Enzymology in monophasic organic media. Current Opinion in Biotechnology, 1992, 3, 124-129.	6.6	18
266	Selective antimicrobial activity of cell lytic enzymes in a bacterial consortium. Applied Microbiology and Biotechnology, 2019, 103, 7041-7054.	3.6	18
267	Patents and literature biocatalysis in nonaqueous media. Applied Biochemistry and Biotechnology, 1988, 19, 103-112.	2.9	17
268	Molecular Analysis of the Role of Tyrosine 224 in the Active Site of Streptomyces coelicolor RppA, a Bacterial Type III Polyketide Synthase. Journal of Biological Chemistry, 2007, 282, 12765-12772.	3.4	17
269	Assays for determining heparan sulfate and heparin O-sulfotransferase activity and specificity. Analytical and Bioanalytical Chemistry, 2014, 406, 525-536.	3.7	17
270	High Cell Density Cultivation of Recombinant Escherichia coli Strains Expressing 2-O-Sulfotransferase and C5-Epimerase for the Production of Bioengineered Heparin. Applied Biochemistry and Biotechnology, 2015, 175, 2986-2995.	2.9	17

#	Article	IF	Citations
271	Biocatalytic synthesis of disaccharide high-intensity sweeterner sucralose via a tetrachlororaffinose intermediate. Biotechnology and Bioengineering, 1992, 39, 211-217.	3.3	16
272	Chemoenzymatic construction of a four-component Ugi combinatorial library. Biotechnology and Bioengineering, 2000, 69, 457-460.	3.3	16
273	Aromatic Hydroxylation Catalyzed by Toluene 4-Monooxygenase in Organic Solvent/Aqueous Buffer Mixtures. Applied Biochemistry and Biotechnology, 2001, 90, 187-198.	2.9	16
274	Exquisite Regioselectivity and Increased Transesterification Activity of an Immobilized Bacillus subtilis Protease. Biotechnology Progress, 2002, 18, 986-993.	2.6	16
275	Bionanoconjugateâ€based composites for decontamination of nerve agents. Biotechnology Progress, 2010, 26, 1622-1628.	2.6	16
276	Multiplexed Amino Acid Array Utilizing Bioluminescent Escherichia coli Auxotrophs. Analytical Chemistry, 2010, 82, 4072-4077.	6.5	16
277	High density fermentation of probiotic E. coli Nissle 1917 towards heparosan production, characterization, and modification. Applied Microbiology and Biotechnology, 2021, 105, 1051-1062.	3.6	16
278	Microfluidic peroxidase biochip for polyphenol synthesis. Biotechnology and Bioengineering, 2003, 81, 563-569.	3.3	15
279	Platelet factor 4 polyanion immune complexes: heparin induced thrombocytopenia and vaccine-induced immune thrombotic thrombocytopenia. Thrombosis Journal, 2021, 19, 66.	2.1	15
280	Solid-Phase Chemoenzymatic Synthesis ofC-Sialosides. Journal of Organic Chemistry, 2004, 69, 6900-6903.	3.2	14
281	Protein Immobilization in Hollow Nanostructures and Investigation of the Adsorbed Protein Behavior. Langmuir, 2014, 30, 1295-1303.	3.5	14
282	Plasmonic activation of gold nanorods for remote stimulation of calcium signaling and protein expression in HEK 293T cells. Biotechnology and Bioengineering, 2016, 113, 2228-2240.	3.3	14
283	Sensitive multiplex detection of whole bacteria using self-assembled cell binding domain complexes. Analytica Chimica Acta, 2018, 1030, 156-165.	5.4	14
284	Enzymatic catalysis on coal-related compounds in organic media: kinetics and potential commercial applications. Resources, Conservation and Recycling, 1991, 5, 195-209.	10.8	13
285	A GFP complementation system for monitoring and directing nanomaterial mediated protein delivery to human cellular organelles. Biotechnology and Bioengineering, 2010, 107, 1040-1047.	3.3	13
286	Highâ€Throughput Transfection of Interfering RNA into a 3D Cellâ€Culture Chip. Small, 2012, 8, 2091-2098.	10.0	13
287	Expression of Low Endotoxin 3-O-Sulfotransferase in Bacillus subtilis and Bacillus megaterium. Applied Biochemistry and Biotechnology, 2013, 171, 954-962.	2.9	13
288	Modular Assembly of Unique Chimeric Lytic Enzymes on a Protein Scaffold Possessing Anti-Staphylococcal Activity. Biomacromolecules, 2019, 20, 4035-4043.	5.4	13

#	Article	IF	Citations
289	Evaluating Heparin Products for Heparin-Induced Thrombocytopenia Using Surface Plasmon Resonance. Journal of Pharmaceutical Sciences, 2020, 109, 975-980.	3.3	13
290	Chemoenzymatic Synthesis of Trinitrobenzyl Halides as an Alternative Approach to Hexanitrostilbene. Advanced Synthesis and Catalysis, 2002, 344, 1097-1102.	4.3	12
291	Preparation of Biopolymer-Based Materials Using Ionic Liquids for the Biomedical Application. ACS Symposium Series, 2010, , 115-134.	0.5	12
292	Metabolic Enzyme Microarray Coupled with Miniaturized Cell-Culture Array Technology for High-Throughput Toxicity Screening. Methods in Molecular Biology, 2010, 632, 221-237.	0.9	12
293	Ozonolysis of the double bond of the unsaturated uronate residue in low-molecular-weight heparin and K5 heparosan. Carbohydrate Research, 2011, 346, 1962-1966.	2.3	12
294	Enhanced assembly and colloidal stabilization of primate erythroparvovirus 1 virus-like particles for improved surface engineering. Acta Biomaterialia, 2016, 35, 206-214.	8.3	12
295	Highâ€throughput combinatorial screening reveals interactions between signaling molecules that regulate adult neural stem cell fate. Biotechnology and Bioengineering, 2019, 116, 193-205.	3.3	12
296	Metalâ€“Organic Framework-Based Composite for Photocatalytic Detection of Prevalent Pollutant. ACS Applied Materials & Interfaces, 2019, 11, 31049-31059.	8.0	12
297	Expression of enzymes for 3â€²-phosphoadenosine-5â€²-phosphosulfate (PAPS) biosynthesis and their preparation for PAPS synthesis and regeneration. Applied Microbiology and Biotechnology, 2020, 104, 7067-7078.	3.6	12
298	Enzymatic and Chemoenzymatic Approaches to Polymer Synthesis and Modification. Annals of the New York Academy of Sciences, 1992, 672, 352-362.	3.8	12
299	Manipulation of Individual Carbon Nanotubes by Reconstructing the Intracellular Transport of a Living Cell. Advanced Materials, 2009, 21, 1182-1186.	21.0	11
300	Preparation and Characterization of Electrospun Core Sheath Nanofibers from Multi-Walled Carbon Nanotubes and Poly(vinyl pyrrolidone). Journal of Nanoscience and Nanotechnology, 2012, 12, 2387-2393.	0.9	11
301	Molecular Mass Characterization of Glycosaminoglycans with Different Degrees of Sulfation in Bioengineered Heparin Process by Size Exclusion Chromatography. Current Analytical Chemistry, 2012, 8, 506-511.	1.2	11
302	3D-cultured neural stem cell microarrays on a micropillar chip for high-throughput developmental neurotoxicology. Experimental Cell Research, 2018, 370, 680-691.	2.6	11
303	Remodeling of Glycosaminoglycans During Differentiation of Adult Human Bone Mesenchymal Stromal Cells Toward Hepatocytes. Stem Cells and Development, 2019, 28, 278-289.	2.1	11
304	A Revised Structure for the Glycolipid Terminus of Escherichia coli K5 Heparosan Capsular Polysaccharide. Biomolecules, 2020, 10, 1516.	4.0	11
305	Opportunities for broadening the application of cell wall lytic enzymes. Applied Microbiology and Biotechnology, 2020, 104, 9019-9040.	3.6	11
306	Kinetic behavior and substrate specificity of horseradish peroxidase in water-miscible organic solvents. Resources, Conservation and Recycling, 1990, 3, 177-185.	10.8	10

#	Article	IF	Citations
307	Supported aqueous-phase enzymatic catalysis in organic media. Applied Biochemistry and Biotechnology, 1992, 33, 1-14.	2.9	10
308	Quantitative and predictive correlations for peroxidase catalysis in organic media. Biotechnology Letters, 1992, 6, 277-282.	0.5	10
309	Mathematical model for the luminol chemiluminescence reaction catalyzed by peroxidase. Biotechnology and Bioengineering, 1993, 41, 1112-1120.	3.3	10
310	Use of alcohols as cosolvents in enzyme-facilitated transport of organic acids through a liquid membrane. Journal of Membrane Science, 1994, 95, 83-91.	8.2	10
311	Biocatalytic Polytransesterification of Inulin with Divinyladipate. Chemistry of Materials, 2002, 14, 4009-4011.	6.7	10
312	Unnatural Polyketide Analogues Selectively Target the HER Signaling Pathway in Human Breast Cancer Cells. ChemBioChem, 2010, 11, 573-580.	2.6	10
313	Unprotonated Short-Chain Alkylamines Inhibit Staphylolytic Activity of Lysostaphin in a Wall Teichoic Acid-Dependent Manner. Applied and Environmental Microbiology, 2018, 84, .	3.1	10
314	3D-Printed interfacial devices for biocatalytic CO2 conversion at gas-liquid interface. Journal of CO2 Utilization, 2020, 38, 291-298.	6.8	10
315	Elucidating the unusual reaction kinetics of D-glucuronyl C5-epimerase. Glycobiology, 2020, 30, 847-858.	2.5	10
316	Enzymatic polytransesterification of aromatic diols in organic solvents. Biotechnology Letters, 1995, 17, 1085-1090.	2.2	9
317	Separation of Î±-acid glycoprotein glycoforms using affinity-based reversed micellar extraction and separation. Biotechnology and Bioengineering, 2000, 70, 484-490.	3.3	9
318	Mass balance analysis of contaminated heparin product. Analytical Biochemistry, 2011, 408, 147-156.	2.4	9
319	Characterization of the activity of the spore cortex lytic enzyme CwlJ1. Biotechnology and Bioengineering, 2015, 112, 1365-1375.	3.3	9
320	Determination of cerebrospinal fluid leakage by selective deletion of transferrin glycoform using an immunochromatographic assay. Theranostics, 2019, 9, 4182-4191.	10.0	9
321	Facile fabrication of antibacterial and antiviral perhydrolase-polydopamine composite coatings. Scientific Reports, 2021, 11, 12410.	3.3	9
322	Ligninase-catalyzed hydroxylation of phenols. BBA - Proteins and Proteomics, 1989, 999, 267-272.	2.1	8
323	Chemoenzymatic Synthesis of Neuraminic Acid ContainingC-Glycoside Polymers. Organic Letters, 2003, 5, 1187-1189.	4.6	8
324	Simultaneous in Vitro Protein Synthesis Using Solid-Phase DNA Template. Biotechnology Progress, 2004, 20, 1705-1709.	2.6	8

#	Article	IF	Citations
325	Effect of eliminase gene (elmA) deletion on heparosan production and shedding in Escherichia coli K5. Journal of Biotechnology, 2013, 165, 175-177.	3.8	8
326	Detection of cerebrospinal fluid leakage by specific measurement of transferrin glycoforms. Electrophoresis, 2015, 36, 2425-2432.	2.4	8
327	Selective characterization of proteins on nanoscale concave surfaces. Biomaterials, 2016, 75, 305-312.	11.4	8
328	High-throughput 3D screening for differentiation of hPSC-derived cell therapy candidates. Science Advances, 2020, 6, eaaz1457.	10.3	8
329	Chemobiocatalytic Synthesis of a Low-Molecular-Weight Heparin. ACS Chemical Biology, 2022, 17, 637-646.	3.4	8
330	Chemoenzymatic synthesis of sucrose-containing aromatic polymers. Biotechnology and Bioengineering, 2001, 72, 541-547.	3.3	7
331	Optical manipulation of microtubules for directed biomolecule assembly. Soft Matter, 2009, 5, 3818.	2.7	7
332	Rapid and Quantitative Measurement of Metabolic Stability without Chromatography or Mass Spectrometry. Journal of the American Chemical Society, 2011, 133, 14476-14479.	13.7	7
333	Polyphenolic disaccharides endow proteins with unusual resistance to aggregation. Biotechnology and Bioengineering, 2012, 109, 1869-1874.	3.3	7
334	Effect of a variety of carbon nanotubes on the iodineâ€“iodide redox pair. Carbon, 2013, 62, 177-181.	10.3	7
335	Microarray platform affords improved product analysis in mammalian cell growth studies. Biotechnology Journal, 2014, 9, 386-395.	3.5	7
336	Antimicrobial effects of positively charged, conductive electrospun polymer fibers. Materials Science and Engineering C, 2020, 116, 111247.	7.3	7
337	Preparation of Low Molecular Weight Heparin from a Remodeled Bovine Intestinal Heparin. Journal of Medicinal Chemistry, 2021, 64, 2242-2253.	6.4	7
338	Endolysin-Based Autolytic E. coli System for Facile Recovery of Recombinant Proteins. Journal of Agricultural and Food Chemistry, 2021, 69, 3134-3143.	5.2	7
339	Improved soluble expression and use of recombinant human renalase. PLoS ONE, 2020, 15, e0242109.	2.5	7
340	Expanding the Scope of Biocatalysis: Oxidative Biotransformations on Solidâ€Supported Substrates. Advanced Synthesis and Catalysis, 2008, 350, 1517-1525.	4.3	6
341	Two-step enzymatic modification of solid-supported bergenin in aqueous and organic media. Tetrahedron Letters, 2010, 51, 1220-1225.	1.4	6
342	Kinesin I ATPase Manipulates Biohybrids Formed from Tubulin and Carbon Nanotubes. Methods in Molecular Biology, 2011, 743, 77-93.	0.9	6

#	Article	IF	Citations
343	Application of Carbon Nanotubes to Wound Healing Biotechnology. ACS Symposium Series, 2012, , 155-174.	0.5	6
344	Addressing endotoxin issues in bioengineered heparin. Biotechnology and Applied Biochemistry, 2012, 59, 420-428.	3.1	6
345	High Sensitivity Detection of Active Botulinum Neurotoxin by Glyco-Quantitative Polymerase Chain-Reaction. Analytical Chemistry, 2014, 86, 2279-2284.	6.5	6
346	A purification process for heparin and precursor polysaccharides using the pH responsive behavior of chitosan. Biotechnology Progress, 2015, 31, 1348-1359.	2.6	6
347	Influence of bacterial culture medium on peptidoglycan binding of cell wall lytic enzymes. Journal of Biotechnology, 2021, 330, 27-34.	3.8	6
348	Kinetic Characterization Of A Fungal Peroxidase FromCoprinus CinereusIn Aqueous And Organic Media. Biocatalysis and Biotransformation, 1995, 13, 53-63.	2.0	5
349	Parameters Affecting the Efficiency of Affinity-Based Reversed Micellar Extraction and Separation (ARMES) in Glycoprotein Purification. Biotechnology Progress, 1997, 13, 440-445.	2.6	5
350	Direct patterning of centrosome arrays as templates for the assembly of microtubules. Biotechnology and Bioengineering, 2006, 94, 1012-1016.	3.3	5
351	Binding domains of Bacillus anthracis phage endolysins recognize cell culture ageâ€related features on the bacterial surface. Biotechnology Progress, 2015, 31, 1487-1493.	2.6	5
352	Enzymatic synthesis of low molecular weight heparins from N-sulfo heparosan depolymerized by heparanase or heparin lyase. Carbohydrate Polymers, 2022, 295, 119825.	10.2	5
353	Generation of Environmentally Compatible Polymer Libraries via Combinatorial Biocatalysis. ACS Symposium Series, 2002, , 34-49.	0.5	4
354	Predicting amino acid residues responsible for enzyme specificity solely from protein sequences. Biotechnology and Bioengineering, 2002, 79, 295-300.	3.3	4
355	In vitro gene expressionâ€coupled bacterial cell chip for screening speciesâ€specific antimicrobial enzymes. Biotechnology and Bioengineering, 2017, 114, 1648-1657.	3.3	4
356	Remote activation of cellular signaling. Science, 2020, 368, 936-937.	12.6	4
357	Threeâ€dimensional in vitro cell culture devices using patientâ€derived cells for highâ€throughput screening of drug combinations. Medical Devices & Sensors, 2020, 3, e10067.	2.7	4
358	Engineering of molecular and cellular biocatalysts: Selected contributions by James E. Bailey. Biotechnology and Bioengineering, 2002, 79, 490-495.	3.3	3
359	Periplasmic Expression as a Basis for Whole Cell Kinetic Screening of Unnatural Enzyme Reactivities. Methods in Enzymology, 2004, 388, 145-156.	1.0	3
360	Protein-Carbon Nanotube Conjugates. ACS Symposium Series, 2008, , 100-115.	0.5	3

#	Article	IF	Citations
361	Enzyme-Nanotube-Based Composites Used for Chemical and Biological Decontamination. ACS Symposium Series, 2010, , 103-107.	0.5	3
362	Functional nanoscale biomolecular materials. Biotechnology Journal, 2013, 8, 165-166.	3.5	3
363	Three-Dimensional Cell-Based Microarrays: Printing Pluripotent Stem Cells into 3D Microenvironments. Methods in Molecular Biology, 2018, 1771, 69-81.	0.9	3
364	Production and Characterization of Recombinant Collagen-Binding Resilin Nanocomposite for Regenerative Medicine Applications. Regenerative Engineering and Translational Medicine, 2019, 5, 362-372.	2.9	3
365	Polysaccharide Sequence Influences the Specificity and Catalytic Activity of Glucuronyl C5-Epimerase. Biochemistry, 2020, 59, 2576-2584.	2.5	3
366	Substrate interaction inhibits Î³-secretase production of amyloid-Î² peptides. Chemical Communications, 2020, 56, 2578-2581.	4.1	3
367	Heparosan Chain Characterization: Sequential Depolymerization of E. Coli K5 Heparosan by a Bacterial Eliminase Heparin Lyase III and a Bacterial Hydrolase Heparanase Bp to Prepare Defined Oligomers. Biotechnology Journal, 2021, 16, e2000336.	3.5	3
368	Patents and literature. Applied Biochemistry and Biotechnology, 1991, 27, 93-109.	2.9	2
369	Affinity chromatography using enzymatically synthesized nucleotide-containing DNA binding polymers. Biotechnology Letters, 1999, 13, 463-467.	0.5	2
370	Activating Enzymes for Use in Organic Solvents. , 0, , 47-71.		2
371	Using Centrosome Fragments in the Directed Assembly of Microtubules. Journal of Nanoscience and Nanotechnology, 2009, 9, 871-875.	0.9	2
372	Editorial overview: Nanobiotechnology. Current Opinion in Biotechnology, 2014, 28, iv-v.	6.6	2
373	Heavy Heparin: A Stable Isotopeâ€Enriched, Chemoenzymaticallyâ€Synthesized, Polyâ€Component Drug. Angewandte Chemie, 2019, 131, 6023-6027.	2.0	2
374	Engineering Subtilisin for Use in Organic Solvents. Annals of the New York Academy of Sciences, 1992, 672, 94-99.	3.8	1
375	Protein-Directed Self-Assembly of Gold Nanoparticles. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	1
376	Controlled hierarchical assembly of switchable DNAâ€“multiprotein complexes. Biotechnology and Bioengineering, 2006, 94, 312-321.	3.3	1
377	Cover Picture: Enzymatically Derived Sugar-Containing Self-Assembled Organogels with Nanostructured Morphologies (Angew. Chem. Int. Ed. 29/2006). Angewandte Chemie - International Edition, 2006, 45, 4699-4699.	13.8	1
378	Elmer L. Gaden, Jr. Tribute. Biotechnology and Bioengineering, 2012, 109, 2417-2421.	3.3	1

#	Article	IF	Citations
379	Carbon Nanotubes in Biomedical Applications. Frontiers in Nanobiomedical Research, 2014, , 439-474.	0.1	1
380	Advancing in vitroâ€“in vivo toxicity correlations <scp>v</scp>ia highâ€throughput threeâ€dimensional primary hepatocyte culture. AIChE Journal, 2018, 64, 4331-4340.	3.6	1
381	Advanced microtechnologies for high-throughput screening. , 2020, , 149-175.		1
382	Advancing a rapid, high throughput screening platform for optimization of lentivirus production. Biotechnology Journal, 2021, 16, 2000621.	3.5	1
383	Sucrose diacrylate: A unique chemically and biologically degradable crosslinker for polymeric hydrogels. , 1997, 35, 2221.		1
384	Biomolecule-Nanomaterial Interactions: Effect on Biomolecular Structure, Function, and Stability. , 2009, , 97-114.		1
385	Enzyme Design for Nonaqueous Media. Progress in Biotechnology, 1992, 8, 63-66.	0.2	1
386	Patents and literature. Applied Biochemistry and Biotechnology, 1989, 22, 361-373.	2.9	0
387	Novel Polymer Synthesis using Enzymatic Catalysis in Nonaqueous Media. Materials Research Society Symposia Proceedings, 1990, 218, 17.	0.1	0
388	Patents and literature. Applied Biochemistry and Biotechnology, 1990, 26, 107-113.	2.9	0
389	Isolation of virally-infected insect cells from a population containing infected and uninfected cells. Biotechnology Letters, 1995, 9, 897-900.	0.5	0
390	Carbon nanotubes: Small 3/2009. Small, 2009, 5, NA-NA.	10.0	0
391	Inside Cover: Unnatural Polyketide Analogues Selectively Target the HER Signaling Pathway in Human Breast Cancer Cells (ChemBioChem 4/2010). ChemBioChem, 2010, 11, 442-442.	2.6	0
392	Artificial Organelles: Digital Microfluidic Platform for Proteoglycan and Glycoprotein Biosynthesis. Scientific World Journal, The, 2010, 10, 997-1000.	2.1	0
393	Exploring embryonic stem cell fate using cellular microarrays. , 2011, , .		0
394	Enzyme-Based Technologies: Perspectives and Opportunities. ACS Symposium Series, 2013, , 15-27.	0.5	0
395	Enzyme-based nanocomposites: Using nature to ward off emerging threats. , 2014, , .		0
396	Back Cover Image, Volume 116, Number 12, December 2019. Biotechnology and Bioengineering, 2019, 116, ii.	3.3	0

#	Article	IF	Citations
397	Chemical O-sulfation of N-sulfoheparosan: a route to rare N-sulfo-3-O-sulfoglucosamine and 2-O-sulfoglucuronic acid. Glycoconjugate Journal, 2020, 37, 589-597.	2.7	0
398	Editorial overview: Emerging routes to sustainable energy capture and conversion into value-added products. Current Opinion in Biotechnology, 2022, 73, iii-vi.	6.6	0
399	Influence of Circadian Rhythm on Drug Metabolism in 3D Hepatic Spheroids. Biotechnology and Bioengineering, 0, , .	3.3	0