Bernd Nidetzky

List of Publications by Year
in descending order

320 papers	9,674 citations	41344 49 h-index	82547 72 g-index
329 all docs	329 docs citations	329 times ranked	8204 citing authors

#	Article	IF	Citations
1	Metalâ€"Organic Framework-Based Enzyme Biocomposites. Chemical Reviews, 2021, 121, 1077-1129.	47.7	372
2	Cellulose Surface Degradation by a Lytic Polysaccharide Monooxygenase and Its Effect on Cellulase Hydrolytic Efficiency. Journal of Biological Chemistry, 2014, 289, 35929-35938.	3.4	234
3	Advanced characterization of immobilized enzymes as heterogeneous biocatalysts. Catalysis Today, 2016, 259, 66-80.	4.4	152
4	Sucrose synthase: A unique glycosyltransferase for biocatalytic glycosylation process development. Biotechnology Advances, 2016, 34, 88-111.	11.7	141
5	Biotransformations in microstructured reactors: more than flowing with the stream?. Trends in Biotechnology, 2011, 29, 333-342.	9.3	135
6	Leloir Glycosyltransferases as Biocatalysts for Chemical Production. ACS Catalysis, 2018, 8, 6283-6300.	11.2	133
7	Altering the coenzyme preference of xylose reductase to favor utilization of NADH enhances ethanol yield from xylose in a metabolically engineered strain of Saccharomyces cerevisiae. Microbial Cell Factories, 2008, 7, 9.	4.0	130
8	Characterization of dTDP-4-dehydrorhamnose 3,5-Epimerase and dTDP-4-dehydrorhamnose Reductase, Required for dTDP-l-rhamnose Biosynthesis in Salmonella enterica Serovar Typhimurium LT2. Journal of Biological Chemistry, 1999, 274, 25069-25077.	3.4	111
9	A Highâ€Yielding Biocatalytic Process for the Production of 2â€<i>O</i>â€(Î±â€<scp>D</scp>â€glucopyranosyl)â€<i>sn</i>â€glycerol, a Natural Osmolyte and Useful Moisturizing Ingredient. Angewandte Chemie - International Edition, 2008, 47, 10086-10089.	13.8	104
10	Carrier-free immobilized enzymes for biocatalysis. Biotechnology Letters, 2010, 32, 341-350.	2.2	104
11	Fusion to a pull-down domain: a novel approach of producingTrigonopsis variabilisD-amino acid oxidase as insoluble enzyme aggregates. Biotechnology and Bioengineering, 2007, 97, 454-461.	3.3	100
12	Nutritional requirements of the BY series of<i>Saccharomyces cerevisiae</i>strains for optimum growth. FEMS Yeast Research, 2012, 12, 796-808.	2.3	96
13	Recombinant sucrose phosphorylase from Leuconostoc mesenteroides: Characterization, kinetic studies of transglucosylation, and application of immobilised enzyme for production of Î±-d-glucose 1-phosphate. Journal of Biotechnology, 2007, 129, 77-86.	3.8	94
14	Leloir Glycosyltransferases and Natural Product Glycosylation: Biocatalytic Synthesis of the <i>C</i>â€Glucoside Nothofagin, a Major Antioxidant of Redbush Herbal Tea. Advanced Synthesis and Catalysis, 2013, 355, 2757-2763.	4.3	93
15	Biotechnological production of fucosylated human milk oligosaccharides: Prokaryotic fucosyltransferases and their use in biocatalytic cascades or whole cell conversion systems. Journal of Biotechnology, 2016, 235, 61-83.	3.8	91
16	Continuous enzymatic production of xylitol with simultaneous coenzyme regeneration in a charged membrane reactor. Biotechnology and Bioengineering, 1996, 52, 387-396.	3.3	88
17	Single-molecule study of oxidative enzymatic deconstruction of cellulose. Nature Communications, 2017, 8, 894.	12.8	86
18	Carbohydrate synthesis by disaccharide phosphorylases: Reactions, catalytic mechanisms and application in the glycosciences. Biotechnology Journal, 2010, 5, 1324-1338.	3.5	85

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19	Oxidation of Monolignols by Members of the Berberine Bridge Enzyme Family Suggests a Role in Plant Cell Wall Metabolism. Journal of Biological Chemistry, 2015, 290, 18770-18781.	3.4	83
20	A simple assay for measuring cellobiose dehydrogenase activity in the presence of laccase. Journal of Microbiological Methods, 1999, 35, 253-259.	1.6	79
21	Characterization of trehalose phosphorylase from Schizophyllum commune. Biochemical Journal, 1999, 341, 385-393.	3.7	79
22	Reaction Coordinate Analysis for Î²-Diketone Cleavage by the Non-Heme Fe2+-Dependent Dioxygenase Dke1. Journal of the American Chemical Society, 2005, 127, 12306-12314.	13.7	76
23	A new approach for modeling cellulase-cellulose adsorption and the kinetics of the enzymatic hydrolysis of microcrystalline cellulose. Biotechnology and Bioengineering, 1993, 42, 469-479.	3.3	74
24	Positively Charged Mini-Protein Z_{basic2} As a Highly Efficient Silica Binding Module: Opportunities for Enzyme Immobilization on Unmodified Silica Supports. Langmuir, 2012, 28, 10040-10049.	3.5	74
25	Induction of Mannanase, Xylanase, and Endoglucanase Activities in <i>Sclerotium rolfsii</i>. Applied and Environmental Microbiology, 1998, 64, 594-600.	3.1	74
26	Renewal of the Airâ€“Water Interface as a Critical System Parameter of Protein Stability: Aggregation of the Human Growth Hormone and Its Prevention by Surface-Active Compounds. Langmuir, 2013, 29, 15240-15250.	3.5	72
27	Development of an ultra-high-temperature process for the enzymatic hydrolysis of lactose. I. The properties of two thermostable ?-glycosidases. , 1999, 64, 322-332.		70
28	Switching between <i>O</i>â€•and <i>C</i>â€Glycosyltransferase through Exchange of Activeâ€Site Motifs. Angewandte Chemie - International Edition, 2012, 51, 12879-12883.	13.8	69
29	Creating a Waterâ€Soluble Resveratrolâ€Based Antioxidant by Siteâ€Selective Enzymatic Glucosylation. ChemBioChem, 2015, 16, 1870-1874.	2.6	68
30	The influence of feedstock characteristics on enzyme production in Trichoderma reesei: a review on productivity, gene regulation and secretion profiles. Biotechnology for Biofuels, 2019, 12, 238.	6.2	68
31	Fermentation of mixed glucose-xylose substrates by engineered strains of Saccharomyces cerevisiae: role of the coenzyme specificity of xylose reductase, and effect of glucose on xylose utilization. Microbial Cell Factories, 2010, 9, 16.	4.0	67
32	Mannitol metabolism in brown algae involves a new phosphatase family. Journal of Experimental Botany, 2014, 65, 559-570.	4.8	67
33	Sucrose phosphorylase: a powerful transglucosylation catalyst for synthesis of Î±-D-glucosides as industrial fine chemicals. Biocatalysis and Biotransformation, 2010, 28, 10-21.	2.0	64
34	Rules for biocatalyst and reaction engineering to implement effective, NAD(P)H-dependent, whole cell bioreductions. Biotechnology Advances, 2015, 33, 1641-1652.	11.7	63
35	Influence of ionic liquid cosolvent on transgalactosylation reactions catalyzed by thermostable Î²-glycosylhydrolase CelB fromPyrococcus Furiosus. Biotechnology and Bioengineering, 2006, 95, 1093-1100.	3.3	62
36	Hydrolysis of cellooligosaccharides by Trichoderma reesei cellobiohydrolases: Experimental data and kinetic modeling. Enzyme and Microbial Technology, 1994, 16, 43-52.	3.2	61

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37	Development of an ultra-high-temperature process for the enzymatic hydrolysis of lactose: II. Oligosaccharide formation by two thermostable Î²-glycosidases. , 2000, 69, 140-149.		61
38	Dissecting and Reconstructing Synergism. Journal of Biological Chemistry, 2012, 287, 43215-43222.	3.4	61
39	UDP-glucose dehydrogenase: structure and function of a potential drug target. Biochemical Society Transactions, 2010, 38, 1378-1385.	3.4	58
40	Structure and Mechanism of Human UDP-glucose 6-Dehydrogenase. Journal of Biological Chemistry, 2011, 286, 23877-23887.	3.4	58
41	Glucosylglycerol and glucosylglycerate as enzyme stabilizers. Biotechnology Journal, 2010, 5, 187-191.	3.5	56
42	Production of a lactose-free galacto-oligosaccharide mixture by using selective enzymatic oxidation of lactose into lactobionic acid. Enzyme and Microbial Technology, 2001, 29, 434-440.	3.2	55
43	Electronic Substituent Effects on the Cleavage Specificity of a Non-Heme Fe2+-Dependent Î²-Diketone Dioxygenase and Their Mechanistic Implications. Journal of the American Chemical Society, 2004, 126, 12202-12203.	13.7	55
44	Limitations in Xylose-Fermenting<i>Saccharomyces cerevisiae</i>, Made Evident through Comprehensive Metabolite Profiling and Thermodynamic Analysis. Applied and Environmental Microbiology, 2010, 76, 7566-7574.	3.1	53
45	Downstream processing technologies in the biocatalytic production of oligosaccharides. Biotechnology Advances, 2020, 43, 107568.	11.7	53
46	Coatedâ€wall microreactor for continuous biocatalytic transformations using immobilized enzymes. Biotechnology Journal, 2009, 4, 98-107.	3.5	52
47	Oriented and selective enzyme immobilization on functionalized silica carrier using the cationic binding module <i>Z</i>_{basic2}: Design of a heterogeneous <scp>D</scp>â€amino acid oxidase catalyst on porous glass. Biotechnology and Bioengineering, 2012, 109, 1490-1498.	3.3	52
48	Cellulases Dig Deep. Journal of Biological Chemistry, 2012, 287, 2759-2765.	3.4	52
49	Towards the synthesis of glycosylated dihydrochalcone natural products using glycosyltransferase-catalysed cascade reactions. Green Chemistry, 2014, 16, 4417-4425.	9.0	52
50	Shine a light on immobilized enzymes: real-time sensing in solid supported biocatalysts. Trends in Biotechnology, 2013, 31, 194-203.	9.3	51
51	Functional characterization of the native swollenin from Trichoderma reesei: study of its possible role as C1 factor of enzymatic lignocellulose conversion. Biotechnology for Biofuels, 2016, 9, 178.	6.2	51
52	Transgalactosylation by thermostable Î²-glycosidases from Pyrococcus furiosus and Sulfolobus solfataricus. FEBS Journal, 2000, 267, 5055-5066.	0.2	50
53	Visualizing cellulase activity. Biotechnology and Bioengineering, 2013, 110, 1529-1549.	3.3	50
54	Specific quantification oftrichoderma reesei cellulases in reconstituted mixtures and its application to cellulase-cellulose binding studies. Biotechnology and Bioengineering, 1994, 44, 961-966.	3.3	49

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55	The Cetus Process Revisited: A Novel Enzymatic Alternative for the Production of Aldose-Free D-Fructose. Biocatalysis and Biotransformation, 1998, 16, 365-382.	2.0	48
56	Role of non-covalent enzymeâ€"substrate interactions in the reaction catalysed by cellobiose phosphorylase from Cellulomonas uda. Biochemical Journal, 2000, 351, 649-659.	3.7	48
57	The Microenvironment in Immobilized Enzymes: Methods of Characterization and Its Role in Determining Enzyme Performance. Molecules, 2019, 24, 3460.	3.8	48
58	Whole-cell bioreduction of aromatic Î±-keto esters using Candida tenuis xylose reductase and Candida boidinii formate dehydrogenase co-expressed in Escherichia coli. Microbial Cell Factories, 2008, 7, 37.	4.0	46
59	Mesoporous Silica Materials Labeled for Optical Oxygen Sensing and Their Application to Development of a Silica-Supported Oxidoreductase Biocatalyst. ACS Catalysis, 2015, 5, 5984-5993.	11.2	46
60	A Spring in Performance: Silica Nanosprings Boost Enzyme Immobilization in Microfluidic Channels. ACS Applied Materials & Interfaces, 2017, 9, 34641-34649.	8.0	46
61	Combining a Genetically Engineered Oxidase with Hydrogenâ€Bonded Organic Frameworks (HOFs) for Highly Efficient Biocomposites. Angewandte Chemie - International Edition, 2022, 61, .	13.8	46
62	Intraparticle concentration gradients for substrate and acidic product in immobilized cephalosporin C amidase and their dependencies on carrier characteristics and reaction parameters. Biotechnology and Bioengineering, 2010, 106, 528-540.	3.3	45
63	d-Xylose metabolism by Candida intermedia: isolation and characterisation of two forms of aldose reductase with different coenzyme specificities. Biomedical Applications, 2000, 737, 195-202.	1.7	44
64	Single-Site Oxidation, Cysteine 108 to Cysteine Sulfinic Acid, in d -Amino Acid Oxidase from Trigonopsis variabilis and Its Structural and Functional Consequences. Applied and Environmental Microbiology, 2005, 71, 8061-8068.	3.1	44
65	A pH-controlled fed-batch process can overcome inhibition by formate in NADH-dependent enzymatic reductions using formate dehydrogenase-catalyzed coenzyme regeneration. , 1998, 60, 277-282.		43
66	Multiphase biotransformations in microstructured reactors: opportunities for biocatalytic process intensification and smart flow processing. Green Processing and Synthesis, 2013, 2, 541-559.	3.4	43
67	Screening of recombinant glycosyltransferases reveals the broad acceptor specificity of stevia UGT-76G1. Journal of Biotechnology, 2016, 233, 49-55.	3.8	43
68	Integrated process design for biocatalytic synthesis by a Leloir Glycosyltransferase: UDPâ€glucose production with sucrose synthase. Biotechnology and Bioengineering, 2017, 114, 924-928.	3.3	43
69	Glycosynthase Principle Transformed into Biocatalytic Process Technology: Lacto-<i>N</i>-triose II Production with Engineered <i>exo</i>-Hexosaminidase. ACS Catalysis, 2019, 9, 5503-5514.	11.2	43
70	Encapsulation of <i>Trigonopsis variabilis </i><scp>D</scp>â€amino acid oxidase and fast comparison of the operational stabilities of free and immobilized preparations of the enzyme. Biotechnology and Bioengineering, 2008, 99, 251-260.	3.3	42
71	Oriented Immobilization of Enzymes Made Fit for Applied Biocatalysis: Nonâ€Covalent Attachment to Anionic Supports using <i>Z</i>_{basic2} Module. ChemCatChem, 2011, 3, 1299-1303.	3.7	42
72	Enzymatic synthesis of Î²â€glucosylglycerol using a continuousâ€flow microreactor containing thermostable Î²â€glycoside hydrolase CelB immobilized on coated microchannel walls. Biotechnology and Bioengineering, 2009, 103, 865-872.	3.3	41

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73	Analysis and prediction of the physiological effects of altered coenzyme specificity in xylose reductase and xylitol dehydrogenase during xylose fermentation by Saccharomyces cerevisiae. Journal of Biotechnology, 2012, 158, 192-202.	3.8	41
74	Complete switch from Î±-2,3- to Î±-2,6-regioselectivity in Pasteurella dagmatis Î²-<scp>d</scp>-galactoside sialyltransferase by active-site redesign. Chemical Communications, 2015, 51, 3083-3086.	4.1	41
75	From wheat straw to bioethanol: integrative analysis of a separate hydrolysis and co-fermentation process with implemented enzyme production. Biotechnology for Biofuels, 2015, 8, 46.	6.2	41
76	Unlocking the Potential of Leloir Glycosyltransferases for Applied Biocatalysis: Efficient Synthesis of Uridine 5â€²â€Diphosphateâ€Glucose by Sucrose Synthase. Advanced Synthesis and Catalysis, 2016, 358, 3600-3609.	4.3	41
77	Short-Chain Cello-oligosaccharides: Intensification and Scale-up of Their Enzymatic Production and Selective Growth Promotion among Probiotic Bacteria. Journal of Agricultural and Food Chemistry, 2020, 68, 8557-8567.	5.2	41
78	Magnetically responsive horseradish peroxidase@ZIF-8 for biocatalysis. Chemical Communications, 2020, 56, 5775-5778.	4.1	41
79	Engineering Candida tenuis Xylose Reductase for Improved Utilization of NADH: Antagonistic Effects of Multiple Side Chain Replacements and Performance of Site-Directed Mutants under Simulated In Vivo Conditions. Applied and Environmental Microbiology, 2005, 71, 6390-6393.	3.1	40
80	Production of glucosyl glycerol by immobilized sucrose phosphorylase: Options for enzyme fixation on a solid support and application in microscale flow format. Journal of Biotechnology, 2017, 257, 131-138.	3.8	40
81	Human Enzymes for Organic Synthesis. Angewandte Chemie - International Edition, 2018, 57, 13406-13423.	13.8	40
82	Development of an ultrahigh-temperature process for the enzymatic hydrolysis of lactose. IV. Immobilization of two thermostable ?-glycosidases and optimization of a packed-bed reactor for lactose conversion. Biotechnology and Bioengineering, 2002, 77, 619-631.	3.3	39
83	Oriented Coimmobilization of Oxidase and Catalase on Tailor-Made Ordered Mesoporous Silica. Langmuir, 2017, 33, 5065-5076.	3.5	39
84	Single-step enzymatic synthesis of (R)-2-O-Î±-d-glucopyranosyl glycerate, a compatible solute from micro-organisms that functions as a protein stabiliser. Organic and Biomolecular Chemistry, 2009, 7, 4267.	2.8	38
85	Effect of pretreatment severity in continuous steam explosion on enzymatic conversion of wheat straw: Evidence from kinetic analysis of hydrolysis time courses. Bioresource Technology, 2016, 200, 287-296.	9.6	38
86	On the relationship between structure and catalytic effectiveness in solid surface-immobilized enzymes: Advances in methodology and the quest for a single-molecule perspective. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2020, 1868, 140333.	2.3	38
87	Crystal Structure of Pseudomonas fluorescens Mannitol 2-Dehydrogenase Binary and Ternary Complexes. Journal of Biological Chemistry, 2002, 277, 43433-43442.	3.4	37
88	Structural and Kinetic Studies of Induced Fit in Xylulose Kinase from Escherichia coli. Journal of Molecular Biology, 2007, 365, 783-798.	4.2	37
89	A two-step O- to C-glycosidic bond rearrangement using complementary glycosyltransferase activities. Chemical Communications, 2014, 50, 5465-5468.	4.1	37
90	Process intensification for O₂â€dependent enzymatic transformations in continuous singleâ€phase pressurized flow. Biotechnology and Bioengineering, 2019, 116, 503-514.	3.3	37

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91	Probing the substrate binding site of Candida tenuis xylose reductase (AKR2B5) with site-directed mutagenesis. Biochemical Journal, 2006, 393, 51-58.	3.7	36
92	Structure and Mechanism of Human UDP-xylose Synthase. Journal of Biological Chemistry, 2012, 287, 31349-31358.	3.4	36
93	Dual-lifetime referencing (DLR): a powerful method for on-line measurement of internal pH in carrier-bound immobilized biocatalysts. BMC Biotechnology, 2012, 12, 11.	3.3	36
94	Glycosyltransferase cascades for natural product glycosylation: Use of plant instead of bacterial sucrose synthases improves the UDPâ€glucose recycling from sucrose and UDP. Biotechnology Journal, 2017, 12, 1600557.	3.5	36
95	Glycosyltransferase cascades made fit for chemical production: Integrated biocatalytic process for the natural polyphenol <i>C</i>â€glucoside nothofagin. Biotechnology and Bioengineering, 2018, 115, 545-556.	3.3	36
96	Engineering of a matched pair of xylose reductase and xylitol dehydrogenase for xylose fermentation by <i>Saccharomyces cerevisiae</i>. Biotechnology Journal, 2009, 4, 684-694.	3.5	35
97	Quantitating intraparticle O₂ gradients in solid supported enzyme immobilizates: Experimental determination of their role in limiting the catalytic effectiveness of immobilized glucose oxidase. Biotechnology and Bioengineering, 2013, 110, 2086-2095.	3.3	35
98	Multivalency Effects on the Immobilization of Sucrose Phosphorylase in Flow Microchannels and Their Use in the Development of a Highâ€Performance Biocatalytic Microreactor. ChemCatChem, 2017, 9, 161-166.	3.7	35
99	Bioâ€based Î±,Ï‰â€Functionalized Hydrocarbons from Multiâ€step Reaction Sequences with Bioâ€and Metalloâ€catalysts Based on the Fatty Acid Decarboxylase OleT_{JE}. ChemCatChem, 2018, 10, 1192-1201.	3.7	34
100	Enzymatic Production of Pure D-Mannitol at High Productivity. Biocatalysis and Biotransformation, 1998, 16, 351-363.	2.0	33
101	Fine tuning of coenzyme specificity in family 2 aldo-keto reductases revealed by crystal structures of the Lys-274 â†' Arg mutant ofCandida tenuisxylose reductase (AKR2B5) bound to NAD+and NADP+. FEBS Letters, 2005, 579, 763-767.	2.8	33
102	Asp-196 â†' Ala mutant ofLeuconostoc mesenteroidessucrose phosphorylase exhibits altered stereochemical course and kinetic mechanism of glucosyl transfer to and from phosphate. FEBS Letters, 2006, 580, 3905-3910.	2.8	33
103	Acidâ€“base catalysis in Leuconostoc mesenteroides sucrose phosphorylase probed by site-directed mutagenesis and detailed kinetic comparison of wild-type and Glu237â†'Gln mutant enzymes. Biochemical Journal, 2007, 403, 441-449.	3.7	33
104	Dissecting the effect of chemical additives on the enzymatic hydrolysis of pretreated wheat straw. Bioresource Technology, 2014, 169, 713-722.	9.6	33
105	Surface structural dynamics of enzymatic cellulose degradation, revealed by combined kinetic and atomic force microscopy studies. FEBS Journal, 2014, 281, 275-290.	4.7	33
106	Process intensification through microbial strain evolution: mixed glucose-xylose fermentation in wheat straw hydrolyzates by three generations of recombinant Saccharomyces cerevisiae. Biotechnology for Biofuels, 2014, 7, 49.	6.2	33
107	Let the substrate flow, not the enzyme: Practical immobilization of <scp>d</scp>â€amino acid oxidase in a glass microreactor for effective biocatalytic conversions. Biotechnology and Bioengineering, 2016, 113, 2342-2349.	3.3	33
108	Product solubility control in cellooligosaccharide production by coupled cellobiose and cellodextrin phosphorylase. Biotechnology and Bioengineering, 2019, 116, 2146-2155.	3.3	33

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109	Glycosynthase reaction meets the flow: Continuous synthesis of lactoâ€‹<i>N</i>â€‹triose II by engineered Î²â€hexosaminidase immobilized on solid support. Biotechnology and Bioengineering, 2020, 117, 1597-1602.	3.3	33
110	A Convenient Enzymatic Procedure for the Production of Aldose-Free d-Tagatosea. Annals of the New York Academy of Sciences, 1998, 864, 295-299.	3.8	32
111	Structural and functional comparison of 2-His- 1-carboxylate and 3-His metallocentres in non-haem iron(II)-dependent enzymes. Biochemical Society Transactions, 2008, 36, 1180-1186.	3.4	32
112	Phosphorylase-catalyzed bottom-up synthesis of short-chain soluble cello-oligosaccharides and property-tunable cellulosic materials. Biotechnology Advances, 2021, 51, 107633.	11.7	32
113	Cellobiose phosphorylase from Cellulomonas uda: gene cloning and expression in Escherichia coli, and application of the recombinant enzyme in a â€˜glycosynthase-typeâ€™ reaction. Journal of Molecular Catalysis B: Enzymatic, 2004, 29, 241-248.	1.8	31
114	Mechanistic differences among retaining disaccharide phosphorylases: insights from kinetic analysis of active site mutants of sucrose phosphorylase and Î±,Î±-trehalose phosphorylase. Carbohydrate Research, 2008, 343, 2032-2040.	2.3	31
115	Induction of aldose reductase and xylitol dehydrogenase activities in Candida tenuis CBS 4435. FEMS Microbiology Letters, 2006, 149, 31-37.	1.8	30
116	Sucrose Phosphorylase Harbouring a Redesigned, Glycosyltransferaseâ€Like Active Site Exhibits Retaining Glucosyl Transfer in the Absence of a Covalent Intermediate. ChemBioChem, 2009, 10, 2333-2337.	2.6	30
117	Enzymatic Redox Cascade for Oneâ€Pot Synthesis of Uridine 5â€²â€Diphosphate Xylose from Uridine 5â€²â€Diphosphate Glucose. Advanced Synthesis and Catalysis, 2014, 356, 3575-3584.	4.3	30
118	Biocatalytic Cascade of Polyphosphate Kinase and Sucrose Synthase for Synthesis of Nucleotideâ€Activated Derivatives of Glucose. Advanced Synthesis and Catalysis, 2017, 359, 292-301.	4.3	30
119	New flavanol O-glycosides in grape and wine. Food Chemistry, 2018, 266, 441-448.	8.2	30
120	Thermal inactivation ofD-amino acid oxidase fromTrigonopsis variabilis occurs via three parallel paths of irreversible denaturation. Biotechnology and Bioengineering, 2006, 94, 645-654.	3.3	29
121	Bioprocess design guided by in situ substrate supply and product removal: Process intensification for synthesis of (S)-1-(2-chlorophenyl)ethanol. Bioresource Technology, 2012, 108, 216-223.	9.6	29
122	Co-fermentation of hexose and pentose sugars in a spent sulfite liquor matrix with genetically modified Saccharomyces cerevisiae. Bioresource Technology, 2013, 130, 439-448.	9.6	29
123	Characterization of a multifunctional Î±2,3-sialyltransferase from Pasteurella dagmatis. Glycobiology, 2013, 23, 1293-1304.	2.5	29
124	Glycosides as compatible solutes: biosynthesis and applications. Natural Product Reports, 2011, 28, 875.	10.3	28
125	The stabilizing effects of immobilization in D-amino acid oxidase from Trigonopsis variabilis. BMC Biotechnology, 2008, 8, 72.	3.3	27
126	Structural and Kinetic Evidence That Catalytic Reaction of Human UDP-glucose 6-Dehydrogenase Involves Covalent Thiohemiacetal and Thioester Enzyme Intermediates. Journal of Biological Chemistry, 2012, 287, 2119-2129.	3.4	27

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127	Î²â€Cyclodextrin Improves Solubility and Enzymatic <i>C</i>â€Glucosylation of the Flavonoid Phloretin. Advanced Synthesis and Catalysis, 2016, 358, 486-493.	4.3	27
128	l-Lactic acid production from glucose and xylose with engineered strains of Saccharomyces cerevisiae: aeration and carbon source influence yields and productivities. Microbial Cell Factories, 2018, 17, 59.	4.0	27
129	A tailorâ€made, selfâ€sufficient and recyclable monooxygenase catalyst based on coimmobilized cytochrome P450 BM3 and glucose dehydrogenase. Biotechnology and Bioengineering, 2018, 115, 2416-2425.	3.3	27
130	Threeâ€Enzyme Phosphorylase Cascade Immobilized on Solid Support for Biocatalytic Synthesis of Celloâˆ’oligosaccharides. ChemCatChem, 2020, 12, 1350-1358.	3.7	27
131	Leloir glycosyltransferases of natural product <i>C</i>-glycosylation: structure, mechanism and specificity. Biochemical Society Transactions, 2020, 48, 1583-1598.	3.4	27
132	Application of Escherichia coli maltodextrin-phosphorylase for the continuous production of glucose-1-phosphate. Enzyme and Microbial Technology, 1995, 17, 140-146.	3.2	26
133	Endo-Î²-1,4-d-mannanase is efficiently produced by Sclerotium (Athelia) rolfsii under derepressed conditions. Journal of Biotechnology, 1999, 67, 189-203.	3.8	26
134	The role of Asp-295 in the catalytic mechanism ofLeuconostoc mesenteroidessucrose phosphorylase probed with site-directed mutagenesis. FEBS Letters, 2007, 581, 1403-1408.	2.8	26
135	Trehalose phosphorylase from Pleurotus ostreatus: Characterization and stabilization by covalent modification, and application for the synthesis of Î±,Î±-trehalose. Journal of Biotechnology, 2007, 129, 140-150.	3.8	26
136	Characterization of recombinant xylitol dehydrogenase from Galactocandida mastotermitis expressed in Escherichia coli. Chemico-Biological Interactions, 2003, 143-144, 533-542.	4.0	25
137	Development of a fully integrated falling film microreactor for gasâ€"liquidâ€"solid biotransformation with surface immobilized O₂â€dependent enzyme. Biotechnology and Bioengineering, 2016, 113, 1862-1872.	3.3	25
138	Intensifying the O2-dependent heterogeneous biocatalysis: Superoxygenation of solid support from H2O2 by a catalase tailor-made for effective immobilization. Journal of Molecular Catalysis B: Enzymatic, 2016, 134, 302-309.	1.8	25
139	Enhanced Synthesis of 2-<i>O</i>-Î±-<scp>d</scp>-Glucopyranosyl-<scp>l</scp>-ascorbic Acid from Î±-Cyclodextrin by a Highly Disproportionating CGTase. ACS Catalysis, 2016, 6, 1606-1615.	11.2	25
140	The stereochemical course of the reaction mechanism of trehalose phosphorylase from Schizophyllum commune. FEBS Letters, 1998, 440, 440-443.	2.8	24
141	Trigonopsis variabilis d-Amino Acid Oxidase: Control of Protein Quality and Opportunities for Biocatalysis through Production in Escherichia coli. Applied and Environmental Microbiology, 2007, 73, 331-333.	3.1	24
142	Characterization of a Laboratory-Scale Container for Freezing Protein Solutions with Detailed Evaluation of a Freezing Process Simulation. Journal of Pharmaceutical Sciences, 2014, 103, 417-426.	3.3	24
143	Bacterial sialyltransferases and their use in biocatalytic cascades for sialo-oligosaccharide production. Biotechnology Advances, 2020, 44, 107613.	11.7	24
144	A Biological Nanomachine at Work: Watching the Cellulosome Degrade Crystalline Cellulose. ACS Central Science, 2020, 6, 739-746.	11.3	24

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