Ulrich Schwaneberg

List of Publications by Year
in descending order

351 papers	11,114 citations	30068 54 h-index	66906 78 g-index
379 all docs	379 docs citations	379 times ranked	7725 citing authors

#	Article	IF	Citations
1	Laboratory evolution of cytochrome P450 BM-3 monooxygenase for organic cosolvents. Biotechnology and Bioengineering, 2004, 85, 351-358.	3.3	184
2	Advances in ultrahigh-throughput screening for directed enzyme evolution. Chemical Society Reviews, 2020, 49, 233-262.	38.1	182
3	Directed Evolution Empowered Redesign of Natural Proteins for the Sustainable Production of Chemicals and Pharmaceuticals. Angewandte Chemie - International Edition, 2019, 58, 36-40.	13.8	169
4	Directed Evolution of the Fatty-Acid Hydroxylase P450 BM-3 into an Indole-Hydroxylating Catalyst. Chemistry - A European Journal, 2000, 6, 1531-1536.	3.3	167
5	Advances in generating functional diversity for directed protein evolution. Current Opinion in Chemical Biology, 2009, 13, 19-25.	6.1	156
6	Directed Evolution of a Cytochrome P450 Monooxygenase for Alkane Oxidation. Advanced Synthesis and Catalysis, 2001, 343, 601-606.	4.3	148
7	A Continuous Spectrophotometric Assay for P450 BM-3, a Fatty Acid Hydroxylating Enzyme, and Its Mutant F87A. Analytical Biochemistry, 1999, 269, 359-366.	2.4	143
8	A P450 BM-3 mutant hydroxylates alkanes, cycloalkanes, arenes and heteroarenes. Journal of Biotechnology, 2001, 88, 167-171.	3.8	136
9	Protein engineering in bioelectrocatalysis. Current Opinion in Biotechnology, 2003, 14, 590-596.	6.6	132
10	A Statistical Analysis of Random Mutagenesis Methods Used for Directed Protein Evolution. Journal of Molecular Biology, 2006, 355, 858-871.	4.2	132
11	Sequence saturation mutagenesis (SeSaM): a novel method for directed evolution. Nucleic Acids Research, 2004, 32, 26e-26.	14.5	130
12	Directed evolution 2.0: improving and deciphering enzyme properties. Chemical Communications, 2015, 51, 9760-9772.	4.1	122
13	Reengineering CelA2 cellulase for hydrolysis in aqueous solutions of deep eutectic solvents and concentrated seawater. Green Chemistry, 2012, 14, 2719.	9.0	120
14	Applying metagenomics for the identification of bacterial cellulases that are stable in ionic liquids. Green Chemistry, 2009, 11, 957.	9.0	113
15	Asymmetric reduction of ketones with recombinant E. coli whole cells in neat substrates. Chemical Communications, 2011, 47, 12230.	4.1	111
16	Making glucose oxidase fit for biofuel cell applications by directed protein evolution. Biosensors and Bioelectronics, 2006, 21, 2046-2051.	10.1	109
17	Phosphorothioate-based ligase-independent gene cloning (PLICing): An enzyme-free and sequence-independent cloning method. Analytical Biochemistry, 2010, 406, 141-146.	2.4	109
18	Arginine deiminase, a potential anti-tumor drug. Cancer Letters, 2008, 261, 1-11.	7.2	105

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19	A nanocompartment system (Synthosome) designed for biotechnological applications. Journal of Biotechnology, 2006, 123, 50-59.	3.8	104
20	Challenges and advances in the field of self-assembled membranes. Chemical Society Reviews, 2013, 42, 6578.	38.1	96
21	Rational evolution of a medium chain-specific cytochrome P -450 BM-3 variant. BBA - Proteins and Proteomics, 2001, 1545, 114-121.	2.1	94
22	P450 in biotechnology: zinc driven Ï‰-hydroxylation of p-nitrophenoxydodecanoic acid using P450 BM-3 F87A as a catalyst. Journal of Biotechnology, 2000, 84, 249-257.	3.8	92
23	The Diversity Challenge in Directed Protein Evolution. Combinatorial Chemistry and High Throughput Screening, 2006, 9, 271-288.	1.1	92
24	Biofunctional Microgelâ€Based Fertilizers for Controlled Foliar Delivery of Nutrients to Plants. Angewandte Chemie - International Edition, 2017, 56, 7380-7386.	13.8	89
25	Structural Insight into Enantioselective Inversion of an Alcohol Dehydrogenase Reveals a â€œPolar Gateâ€• in Stereorecognition of Diaryl Ketones. Journal of the American Chemical Society, 2018, 140, 12645-12654.	13.7	87
26	OmniChange: The Sequence Independent Method for Simultaneous Site-Saturation of Five Codons. PLoS ONE, 2011, 6, e26222.	2.5	83
27	Advances in protease engineering for laundry detergents. New Biotechnology, 2015, 32, 629-634.	4.4	82
28	A rhodium complex-linked Î²-barrel protein as a hybrid biocatalyst for phenylacetylene polymerization. Chemical Communications, 2012, 48, 9756.	4.1	78
29	Regioselective <i>o</i>â€Hydroxylation of Monosubstituted Benzenes by P450 BM3. Angewandte Chemie - International Edition, 2013, 52, 8459-8462.	13.8	77
30	Cloning and characterization of a thermostable and halo-tolerant endoglucanase from Thermoanaerobacter tengcongensis MB4. Applied Microbiology and Biotechnology, 2011, 89, 315-326.	3.6	76
31	Directed Evolution of Oxygenases: Screening Systems, Success Stories and Challenges. Combinatorial Chemistry and High Throughput Screening, 2007, 10, 197-217.	1.1	72
32	Increasing activity and thermal resistance of <i>Bacillus gibsonii</i> alkaline protease (BgAP) by directed evolution. Biotechnology and Bioengineering, 2013, 110, 711-720.	3.3	72
33	Targeting microplastic particles in the void of diluted suspensions. Environment International, 2019, 123, 428-435.	10.0	72
34	Stereoselective epoxidation of the last double bond of polyunsaturated fatty acids by human cytochromes P450. Journal of Lipid Research, 2010, 51, 1125-1133.	4.2	71
35	Cellulolytic RoboLector â€“ towards an automated high-throughput screening platform for recombinant cellulase expression. Journal of Biological Engineering, 2017, 11, 1.	4.7	71
36	A Whole Cell <i>E. coli</i> Display Platform for Artificial Metalloenzymes: Poly(phenylacetylene) Production with a Rhodiumâ€“Nitrobindin Metalloprotein. ACS Catalysis, 2018, 8, 2611-2614.	11.2	71

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37	Directed evolution of a thermophilic endoglucanase (Cel5A) into highly active Cel5A variants with an expanded temperature profile. Journal of Biotechnology, 2011, 154, 46-53.	3.8	70
38	A Hybrid Ringâ€Opening Metathesis Polymerization Catalyst Based on an Engineered Variant of the Î²â€Barrel Protein FhuA. Chemistry - A European Journal, 2013, 19, 13865-13871.	3.3	70
39	Laboratory evolution of P450 BM3 for mediated electron transfer yielding an activity-improved and reductase-independent variant. Protein Engineering, Design and Selection, 2007, 21, 29-35.	2.1	68
40	A Highly Active Biohybrid Catalyst for Olefin Metathesis in Water: Impact of a Hydrophobic Cavity in a Î²-Barrel Protein. ACS Catalysis, 2015, 5, 7519-7522.	11.2	68
41	Engineering Robust Cellulases for Tailored Lignocellulosic Degradation Cocktails. International Journal of Molecular Sciences, 2020, 21, 1589.	4.1	68
42	P450 monooxygenase in biotechnology. Journal of Chromatography A, 1999, 848, 149-159.	3.7	66
43	Direct Oxidation of Cycloalkanes to Cycloalkanones with Oxygen in Water. Angewandte Chemie - International Edition, 2013, 52, 2359-2363.	13.8	65
44	Directed evolution of a highly active Yersinia mollaretii phytase. Applied Microbiology and Biotechnology, 2012, 95, 405-418.	3.6	64
45	Directed laccase evolution for improved ionic liquid resistance. Green Chemistry, 2013, 15, 1348.	9.0	64
46	Towards the Evolution of Artificial Metalloenzymesâ€"A Protein Engineer's Perspective. Angewandte Chemie - International Edition, 2019, 58, 4454-4464.	13.8	64
47	Functionalized Nanocompartments (Synthosomes) with a Reductionâ€Triggered Release System. Angewandte Chemie - International Edition, 2008, 47, 7029-7031.	13.8	63
48	Directed evolution of glucose oxidase fromAspergillus niger for ferrocenemethanol-mediated electron transfer. Biotechnology Journal, 2007, 2, 241-248.	3.5	61
49	A Screening System for the Directed Evolution of Epoxygenases: Importance of Position 184 in P450â€‰BM3 for Stereoselective Styrene Epoxidation. Angewandte Chemie - International Edition, 2006, 45, 5380-5383.	13.8	59
50	Steering directed protein evolution: strategies to manage combinatorial complexity of mutant libraries. Environmental Microbiology, 2007, 9, 2645-2659.	3.8	59
51	Protein Engineering â€" An Option for Enzymatic Biofuel Cell Design. Electroanalysis, 2010, 22, 765-775.	2.9	59
52	To get what we aim forÂâ€"Âprogress in diversity generation methods. FEBS Journal, 2013, 280, 2961-2978.	4.7	59
53	PTEN-inhibition by zinc ions augments interleukin-2-mediated Akt phosphorylation. Metallomics, 2014, 6, 1277.	2.4	59
54	Machine learning-assisted enzyme engineering. Methods in Enzymology, 2020, 643, 281-315.	1.0	59

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55	A roadmap to directed enzyme evolution and screening systems for biotechnological applications. Biological Research, 2013, 46, 395-405.	3.4	57
56	Directed Evolution of a Bacterial Laccase (CueO) for Enzymatic Biofuel Cells. Angewandte Chemie - International Edition, 2019, 58, 4562-4565.	13.8	57
57	Computerâ€Assisted Recombination (CompassR) Teaches us How to Recombine Beneficial Substitutions from Directed Evolution Campaigns. Chemistry - A European Journal, 2020, 26, 643-649.	3.3	57
58	Anchor peptides: A green and versatile method for polypropylene functionalization. Polymer, 2017, 116, 124-132.	3.8	55
59	An efficient transformation method for Bacillus subtilis DB104. Applied Microbiology and Biotechnology, 2012, 94, 487-493.	3.6	53
60	Enzyme Hydration Determines Resistance in Organic Cosolvents. ACS Catalysis, 2020, 10, 14847-14856.	11.2	53
61	COMPUTER-AIDED PROTEIN DIRECTED EVOLUTION: A REVIEW OF WEB SERVERS, DATABASES AND OTHER COMPUTATIONAL TOOLS FOR PROTEIN ENGINEERING. Computational and Structural Biotechnology Journal, 2012, 2, e201209008.	4.1	52
62	Multi-step biocatalytic depolymerization of lignin. Applied Microbiology and Biotechnology, 2017, 101, 6277-6287.	3.6	51
63	Directed Evolution of the Fatty-Acid Hydroxylase P450 BM-3 into an Indole-Hydroxylating Catalyst. Chemistry - A European Journal, 2000, 6, 1531-1536.	3.3	49
64	Sortase-Mediated Surface Functionalization of Stimuli-Responsive Microgels. Biomacromolecules, 2017, 18, 2789-2798.	5.4	49
65	A Flow Cytometryâ€"Based Screening System for Directed Evolution of Proteases. Journal of Biomolecular Screening, 2011, 16, 285-294.	2.6	47
66	Ionic liquid and deep eutectic solvent-activated CelA2 variants generated by directed evolution. Applied Microbiology and Biotechnology, 2014, 98, 5775-5785.	3.6	47
67	In vitro flow cytometry-based screening platform for cellulase engineering. Scientific Reports, 2016, 6, 26128.	3.3	47
68	KnowVolution of the Polymer-Binding Peptide LCI for Improved Polypropylene Binding. Polymers, 2018, 10, 423.	4.5	47
69	Sensitive Assay for Laboratory Evolution of Hydroxylases toward Aromatic and Heterocyclic Compounds. Journal of Biomolecular Screening, 2005, 10, 246-252.	2.6	46
70	Ionic liquid effects on the activity of monooxygenase P450 BM-3. Green Chemistry, 2008, 10, 117-123.	9.0	46
71	Reengineered glucose oxidase for amperometric glucose determination in diabetes analytics. Biosensors and Bioelectronics, 2013, 50, 84-90.	10.1	46
72	Tunable Enzymatic Activity and Enhanced Stability of Cellulase Immobilized in Biohybrid Nanogels. Biomacromolecules, 2016, 17, 3619-3631.	5.4	46

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73	Expression of the Zn2+-containing hydroxynitrile lyase from flax (Linum usitatissimum) in Pichia pastorisâ€" utilization of the recombinant enzyme for enzymatic analysis and site-directed mutagenesis. Plant Science, 1998, 139, 19-27.	3.6	45
74	Cost-Effective Whole-Cell Assay for Laboratory Evolution of Hydroxylases in Escherichia coli. Journal of Biomolecular Screening, 2001, 6, 111-117.	2.6	45
75	A Fluorescent Hydrogel-Based Flow Cytometry High-Throughput Screening Platform for Hydrolytic Enzymes. Chemistry and Biology, 2014, 21, 1733-1742.	6.0	45
76	Towards Understanding Directed Evolution: More than Half of All Amino Acid Positions Contribute to Ionic Liquid Resistance of <i>Bacillus subtilis</i> Lipase A. ChemBioChem, 2015, 16, 937-945.	2.6	45
77	Electron transfer pathways in a light, oxygen, voltage (LOV) protein devoid of the photoactive cysteine. Scientific Reports, 2017, 7, 13346.	3.3	45
78	Disulfide Bond Engineering of an Endoglucanase from Penicillium verruculosum to Improve Its Thermostability. International Journal of Molecular Sciences, 2019, 20, 1602.	4.1	45
79	How to Engineer Organic Solvent Resistant Enzymes: Insights from Combined Molecular Dynamics and Directed Evolution Study. ChemCatChem, 2020, 12, 4073-4083.	3.7	45
80	Less Unfavorable Salt Bridges on the Enzyme Surface Result in More Organic Cosolvent Resistance. Angewandte Chemie - International Edition, 2021, 60, 11448-11456.	13.8	45
81	Understanding a Mechanism of Organic Cosolvent Inactivation in Heme Monooxygenase P450 BM-3. Journal of the American Chemical Society, 2007, 129, 5786-5787.	13.7	44
82	Engineering of the E. coli Outer Membrane Protein FhuA to overcome the Hydrophobic Mismatch in Thick Polymeric Membranes. Journal of Nanobiotechnology, 2011, 9, 8.	9.1	44
83	Flow Cytometer-Based High-Throughput Screening System for Accelerated Directed Evolution of P450 Monooxygenases. ACS Catalysis, 2012, 2, 2724-2728.	11.2	44
84	Exploring the Protein Stability Landscape: <i>Bacillus subtilis</i> Lipase A as a Model for Detergent Tolerance. ChemBioChem, 2015, 16, 930-936.	2.6	44
85	Hybrid Ruthenium ROMP Catalysts Based on an Engineered Variant of Î²â€Barrel Protein FhuA Î"CVF^{tev}: Effect of Spacer Length. Chemistry - an Asian Journal, 2015, 10, 177-182.	3.3	44
86	Multi-site saturation by OmniChange yields a pH- and thermally improved phytase. Journal of Biotechnology, 2014, 170, 68-72.	3.8	43
87	Directed evolution of polypropylene and polystyrene binding peptides. Biotechnology and Bioengineering, 2018, 115, 321-330.	3.3	42
88	Modification of the fatty acid specificity of cytochrome P450 BM-3 from Bacillus megaterium by directed evolution: a validated assay. Journal of Molecular Catalysis B: Enzymatic, 2001, 15, 123-133.	1.8	41
89	Laboratory Evolution of P450 BM-3 for Mediated Electron Transfer. ChemBioChem, 2006, 7, 638-644.	2.6	41
90	Photophysics of the LOV-Based Fluorescent Protein Variant iLOV-Q489K Determined by Simulation and Experiment. Journal of Physical Chemistry B, 2016, 120, 3344-3352.	2.6	41

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91	Directed Evolution of Pâ€‰450 BMâ€‰3 into a <i>p</i>â€Xylene Hydroxylase. ChemCatChem, 2012, 4, 771-773	3.7	40
92	Lessons from diversity of directed evolution experiments by an analysis of 3,000 mutations. Biotechnology and Bioengineering, 2014, 111, 2380-2389.	3.3	40
93	KnowVolution of a Fungal Laccase toward Alkaline pH. ChemBioChem, 2019, 20, 1458-1466.	2.6	40
94	Transversionâ€enriched sequence saturation mutagenesis (SeSaMâ€Tv⁺): A random mutagenesis method with consecutive nucleotide exchanges that complements the bias of errorâ€prone PCR. Biotechnology Journal, 2008, 3, 74-82.	3.5	39
95	Surface charge engineering of a Bacillus gibsonii subtilisin protease. Applied Microbiology and Biotechnology, 2013, 97, 6793-6802.	3.6	39
96	QM/MM Calculations Revealing the Resting and Catalytic States in Zinc-Dependent Medium-Chain Dehydrogenases/Reductases. ACS Catalysis, 2015, 5, 3207-3215.	11.2	39
97	Cavity Size Engineering of a Î²-Barrel Protein Generates Efficient Biohybrid Catalysts for Olefin Metathesis. ACS Catalysis, 2018, 8, 3358-3364.	11.2	39
98	<i>In Vitro</i> Double Oxidation of <i>n</i>â€Heptane with Direct Cofactor Regeneration. Advanced Synthesis and Catalysis, 2013, 355, 1787-1798.	4.3	38
99	A loop engineering strategy improves laccase lcc2 activity in ionic liquid and aqueous solution. Green Chemistry, 2018, 20, 2801-2812.	9.0	38
100	Membrane-Mimetic Dendrimersomes Engulf Living Bacteria via Endocytosis. Nano Letters, 2019, 19, 5732-5738.	9.1	38
101	How To Engineer Ionic Liquids Resistant Enzymes: Insights from Combined Molecular Dynamics and Directed Evolution Study. ACS Sustainable Chemistry and Engineering, 2019, 7, 11293-11302.	6.7	38
102	Engineering and emerging applications of artificial metalloenzymes with whole cells. Nature Catalysis, 2021, 4, 814-827.	34.4	38
103	Casting epPCR (cepPCR): A simple random mutagenesis method to generate high quality mutant libraries. Biotechnology and Bioengineering, 2017, 114, 1921-1927.	3.3	36
104	Directed Evolution of an Antitumor Drug (Arginine Deiminase PpADI) for Increased Activity at Physiological pH. ChemBioChem, 2010, 11, 691-697.	2.6	35
105	Extending the substrate scope of a Baeyerâ€"Villiger monooxygenase by multiple-site mutagenesis. Applied Microbiology and Biotechnology, 2014, 98, 4009-4020.	3.6	35
106	Functionalized nanocompartments (Synthosomes): Limitations and prospective applications in industrial biotechnology. Biotechnology Journal, 2006, 1, 795-805.	3.5	34
107	Mediated electron transfer with P450cin. Electrochemistry Communications, 2010, 12, 1547-1550.	4.7	34
108	Nanocompartments with a pH release system based on an engineered OmpF channel protein. Soft Matter, 2011, 7, 532-539.	2.7	34

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109	Polymersome surface decoration by an EGFP fusion protein employing Cecropin A as peptide â€œanchorâ€ Journal of Biotechnology, 2012, 157, 31-37.	3.8	34
110	Are Directed Evolution Approaches Efficient in Exploring Natureâ€™s Potential to Stabilize a Lipase in Organic Cosolvents?. Catalysts, 2017, 7, 142.	3.5	34
111	Directed Evolution of Hyaluronic Acid Synthase from <i>Pasteurella multocida</i> towards Highâ€Molecularâ€Weight Hyaluronic Acid. ChemBioChem, 2018, 19, 1414-1423.	2.6	34
112	Cloning, expression, and characterization of a thermostable glucoamylase from Thermoanaerobacter tengcongensis MB4. Applied Microbiology and Biotechnology, 2010, 87, 225-233.	3.6	33
113	Design of an activity and stability improved carbonyl reductase from Candida parapsilosis. Journal of Biotechnology, 2013, 165, 52-62.	3.8	33
114	Benzylic hydroxylation of aromatic compounds by P450 BM3. Green Chemistry, 2013, 15, 2408.	9.0	33
115	Artificial Dielsâ€“Alderase based on the transmembrane protein FhuA. Beilstein Journal of Organic Chemistry, 2016, 12, 1314-1321.	2.2	33
116	MIXed plastics biodegradation and UPcycling using microbial communities: EU Horizon 2020 project MIX-UP started January 2020. Environmental Sciences Europe, 2021, 33, 99.	5.5	33
117	Rhodiumâ€Complexâ€Linked Hybrid Biocatalyst: Stereoâ€Controlled Phenylacetylene Polymerization within an Engineered Protein Cavity. ChemCatChem, 2014, 6, 1229-1235.	3.7	32
118	Matterâ€<i>tag</i>: A universal immobilization platform for enzymes on polymers, metals, and siliconâ€based materials. Biotechnology and Bioengineering, 2020, 117, 49-61.	3.3	32
119	Chemoenzymatic route to Î²-blockers via 3-hydroxy esters. Tetrahedron: Asymmetry, 1996, 7, 2017-2022.	1.8	31
120	A Competitive Flow Cytometry Screening System for Directed Evolution of Therapeutic Enzyme. ACS Synthetic Biology, 2015, 4, 768-775.	3.8	31
121	Water-Soluble Reactive Copolymers Based on Cyclic <i>N</i>-Vinylamides with Succinimide Side Groups for Bioconjugation with Proteins. Macromolecules, 2015, 48, 4256-4268.	4.8	31
122	A bifunctional dermaseptinâ€“thanatin dipeptide functionalizes the crop surface for sustainable pest management. Green Chemistry, 2019, 21, 2316-2325.	9.0	31
123	Rapid and Oriented Immobilization of Laccases on Electrodes via a Methionine-Rich Peptide. ACS Catalysis, 2021, 11, 2445-2453.	11.2	31
124	Enzymeâ€“Polyelectrolyte Complexes Boost the Catalytic Performance of Enzymes. ACS Catalysis, 2018, 8, 10876-10887.	11.2	30
125	A thermostable flavin-based fluorescent protein from Chloroflexus aggregans: a framework for ultra-high resolution structural studies. Photochemical and Photobiological Sciences, 2019, 18, 1793-1805.	2.9	30
126	A nanophosphor-based method for selective DNA recovery in Synthosomes. Biotechnology Journal, 2006, 1, 828-834.	3.5	29

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127	Ultrahigh Throughput Screening System for Directed Glucose Oxidase Evolution in Yeast Cells. Combinatorial Chemistry and High Throughput Screening, 2011, 14, 55-60.	1.1	29
128	Directed arginine deiminase evolution for efficient inhibition of arginine-auxotrophic melanomas. Applied Microbiology and Biotechnology, 2015, 99, 1237-1247.	3.6	29
129	Engineering Enhanced Pore Sizes Using FhuA Î"1-160 from <i>E. coli</i> Outer Membrane as Template. ACS Sensors, 2017, 2, 1619-1626.	7.8	29
130	KnowVolution of a GH5 Cellulase from <i>Penicillium verruculosum</i> to Improve Thermal Stability for Biomass Degradation. ACS Sustainable Chemistry and Engineering, 2020, 8, 12388-12399.	6.7	29
131	Challenges of the genetic code for exploring sequence space in directed protein evolution. Biocatalysis and Biotransformation, 2007, 25, 229-241.	2.0	28
132	SeSaMâ€Tvâ€II Generates a Protein Sequence Space that is Unobtainable by epPCR. ChemBioChem, 2011, 12, 1595-1601.	2.6	28
133	Iterative key-residues interrogation of a phytase with thermostability increasing substitutions identified in directed evolution. Applied Microbiology and Biotechnology, 2016, 100, 227-242.	3.6	28
134	An Enzymatic Route to Î±â€Tocopherol Synthons: Aromatic Hydroxylation of Pseudocumene and Mesitylene with P450 BM3. Chemistry - A European Journal, 2017, 23, 17981-17991.	3.3	28
135	Biocatalyst Immobilization by Anchor Peptides on an Additively Manufacturable Material. Organic Process Research and Development, 2019, 23, 1852-1859.	2.7	28
136	CompassR Yields Highly Organicâ€Solventâ€Tolerant Enzymes through Recombination of Compatible Substitutions. Chemistry - A European Journal, 2021, 27, 2789-2797.	3.3	28
137	A Potential Antitumor Drug (Arginine Deiminase) Reengineered for Efficient Operation under Physiological Conditions. ChemBioChem, 2010, 11, 2294-2301.	2.6	27
138	Reengineered carbonyl reductase for reducing methyl-substituted cyclohexanones. Protein Engineering, Design and Selection, 2013, 26, 291-298.	2.1	27
139	Grafting PNIPAAm from Î²-barrel shaped transmembrane nanopores. Biomaterials, 2016, 107, 115-123.	11.4	27
140	Sortase-Mediated High-Throughput Screening Platform for Directed Enzyme Evolution. ACS Combinatorial Science, 2018, 20, 203-211.	3.8	27
141	Exploring the full natural diversity of single amino acid exchange reveals that 40â€"60% of BSLA positions improve organic solvents resistance. Bioresources and Bioprocessing, 2018, 5, .	4.2	27
142	Toward understanding the inactivation mechanism of monooxygenase P450 BM-3 by organic cosolvents: A molecular dynamics simulation study. Biopolymers, 2006, 83, 467-476.	2.4	26
143	Whole-cell double oxidation of n-heptane. Journal of Biotechnology, 2014, 191, 196-204.	3.8	26
144	Rapid and Robust Coating Method to Render Polydimethylsiloxane Surfaces Cell-Adhesive. ACS Applied Materials & Interfaces, 2019, 11, 41091-41099.	8.0	26

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145	Ultrahighâ€throughput screening system for directed polymer binding peptide evolution. Biotechnology and Bioengineering, 2019, 116, 1856-1867.	3.3	26
146	Chemoenzymatic cascade for stilbene production from cinnamic acid catalyzed by ferulic acid decarboxylase and an artificial metathease. Catalysis Science and Technology, 2019, 9, 5572-5576.	4.1	26
147	CompassR-guided recombination unlocks design principles to stabilize lipases in ILs with minimal experimental efforts. Green Chemistry, 2021, 23, 3474-3486.	9.0	26
148	Temperature effects on structure and dynamics of the psychrophilic protease subtilisin S41 and its thermostable mutants in solution. Protein Engineering, Design and Selection, 2011, 24, 533-544.	2.1	25
149	An electrochemical microtiter plate for parallel spectroelectrochemical measurements. Electrochimica Acta, 2013, 89, 98-105.	5.2	25
150	Reactive Copolymers Based on <i>N</i>-Vinyl Lactams with Pyridyl Disulfide Side Groups via RAFT Polymerization and Postmodification via Thiolâ€"Disulfide Exchange Reaction. Macromolecules, 2016, 49, 7141-7154.	4.8	25
151	Directed sortase A evolution for efficient site-specific bioconjugations in organic co-solvents. Chemical Communications, 2018, 54, 11467-11470.	4.1	25
152	Critical effect of proline on thermostability of endoglucanase II from Penicillium verruculosum. Biochemical Engineering Journal, 2019, 152, 107395.	3.6	25
153	Depolymerization of Laccase-Oxidized Lignin in Aqueous Alkaline Solution at 37 Â°C. ACS Sustainable Chemistry and Engineering, 2019, 7, 11150-11156.	6.7	25
154	Stimuli-Responsive Poly(<i>N</i>-Vinyllactams) with Glycidyl Side Groups: Synthesis, Characterization, and Conjugation with Enzymes. Biomacromolecules, 2019, 20, 992-1006.	5.4	25
155	MicroGelzymes: pH-Independent Immobilization of Cytochrome P450 BM3 in Microgels. Biomacromolecules, 2020, 21, 5128-5138.	5.4	25
156	Vanadium bromoperoxidase-coupled fluorescent assay for flow cytometry sorting of glucose oxidase gene libraries in double emulsions. Analytical and Bioanalytical Chemistry, 2012, 404, 1439-1447.	3.7	24
157	Who's Who? Allocation of Carbonyl Reductase Isoenzymes from <i>Candida parapsilosis</i> by Combining Bioâ€•and Computational Chemistry. ChemBioChem, 2012, 13, 803-809.	2.6	24
158	Engineered phytases for emerging biotechnological applications beyond animal feeding. Applied Microbiology and Biotechnology, 2019, 103, 6435-6448.	3.6	24
159	Phytase-Based Phosphorus Recovery Process for 20 Distinct Press Cakes. ACS Sustainable Chemistry and Engineering, 2020, 8, 3913-3921.	6.7	24
160	Kill&Repel Coatings: The Marriage of Antifouling and Bactericidal Properties to Mitigate and Treat Wound Infections. Advanced Functional Materials, 2022, 32, 2106656.	14.9	24
161	Structural and dynamic properties of cytochrome P450 BM-3 in pure water and in a dimethylsulfoxide/water mixture. Biopolymers, 2005, 78, 259-267.	2.4	23
162	Rapid evolution of arginine deiminase for improved anti-tumor activity. Applied Microbiology and Biotechnology, 2011, 90, 193-201.	3.6	23

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163	Electrochemical Oxidation of Glucose Using Mutant Glucose Oxidase from Directed Protein Evolution for Biosensor and Biofuel Cell Applications. Applied Biochemistry and Biotechnology, 2011, 165, 1448-1457.	2.9	23
164	The role of active-site Phe87 in modulating the organic co-solvent tolerance of cytochrome P450 BM3 monooxygenase. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 1013-1017.	0.7	23
165	Phosphorothioate-based DNA recombination: an enzyme-free method for the combinatorial assembly of multiple DNA fragments. BioTechniques, 2012, 52, 1-6.	1.8	23
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