Huimin Zhao

List of Publications by Year in Descending Order

205 papers	11,599 citations	56 h-index	101 g-index
225 ext. papers	14,025 ext. citations	9.5 avg, IF	7.04 L-index

#	Paper	IF	Citations
205	Metabolic engineering of Rhodotorula toruloides IFO0880 improves C16 and C18 fatty alcohol production from synthetic media.. *Microbial Cell Factories*, **2022**, 21, 26	6.4	1
204	PlasmidMaker is a versatile, automated, and high throughput end-to-end platform for plasmid construction.. *Nature Communications*, **2022**, 13, 2697	17.4	0
203	A widespread pathway for substitution of adenine by diaminopurine in phage genomes. *Science*, **2021**, 372, 512-516	33.3	21
202	The Glycyl Radical Enzyme Arylacetate Decarboxylase from Olsenella scatoligenes. *ACS Catalysis*, **2021**, 11, 5789-5794	13.1	0
201	Replication timing maintains the global epigenetic state in human cells. *Science*, **2021**, 372, 371-378	33.3	24
200	macroMS: Image-Guided Analysis of Random Objects by Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry. *Journal of the American Society for Mass Spectrometry*, **2021**, 32, 1180-1188	3.5	2
199	Engineering oleaginous yeast Rhodotorula toruloides for overproduction of fatty acid ethyl esters. *Biotechnology for Biofuels*, **2021**, 14, 115	7.8	8
198	Precise Regulation of Cas9-Mediated Genome Engineering by Anti-CRISPR-Based Inducible CRISPR Controllers. *ACS Synthetic Biology*, **2021**, 10, 1320-1327	5.7	3
197	A rapid, accurate, scalable, and portable testing system for COVID-19 diagnosis. *Nature Communications*, **2021**, 12, 2905	17.4	18
196	Structural and Biochemical Investigation of UTP Cyclohydrolase. *ACS Catalysis*, **2021**, 11, 8895-8901	13.1	1
195	Cloning and characterization of a panel of mitochondrial targeting sequences for compartmentalization engineering in Saccharomyces cerevisiae. *Biotechnology and Bioengineering*, **2021**, 118, 4269-4277	4.9	0
194	Identification of novel metabolic engineering targets for S-adenosyl-L-methionine production in Saccharomyces cerevisiae via genome-scale engineering. *Metabolic Engineering*, **2021**, 66, 319-327	9.7	3
193	TALEN outperforms Cas9 in editing heterochromatin target sites. *Nature Communications*, **2021**, 12, 606	17.4	23
192	Development of Host-Orthogonal Genetic Systems for Synthetic Biology. *Advanced Biology*, **2021**, 5, e2000252		3
191	Can Deep Learning Solve the Cas9 Dilemma?. *CRISPR Journal*, **2021**, 4, 13-15	2.5	1
190	Cas12a-assisted precise targeted cloning using in vivo Cre-lox recombination. *Nature Communications*, **2021**, 12, 1171	17.4	8
189	Expanding the Potential of Mammalian Genome Engineering Targeted DNA Integration. *ACS Synthetic Biology*, **2021**, 10, 429-446	5.7	1

188	Directed Evolution: Methodologies and Applications. *Chemical Reviews*, **2021**, 121, 12384-12444	68.1	37
187	High-Throughput Mass Spectrometry Complements Protein Engineering **2021**, 57-79		0
186	Biochemical Investigation of 3-Sulfopropionaldehyde Reductase HpfD. *ChemBioChem*, **2021**, 22, 2862-2868	3.8	
185	ECNet is an evolutionary context-integrated deep learning framework for protein engineering. *Nature Communications*, **2021**, 12, 5743	17.4	6
184	Promoter-proximal CTCF binding promotes distal enhancer-dependent gene activation. *Nature Structural and Molecular Biology*, **2021**, 28, 152-161	17.6	43
183	Genome-scale metabolic reconstruction of the non-model yeast SD108 and its application to organic acids production. *Metabolic Engineering Communications*, **2020**, 11, e00148	6.5	5
182	Fine-tuning the regulation of Cas9 expression levels for efficient CRISPR-Cas9 mediated recombination in Streptomyces. *Journal of Industrial Microbiology and Biotechnology*, **2020**, 47, 413-423	4.2	13
181	Optically guided mass spectrometry to screen microbial colonies for directed enzyme evolution. *Methods in Enzymology*, **2020**, 644, 255-273	1.7	
180	Biosystems Design by Machine Learning. *ACS Synthetic Biology*, **2020**, 9, 1514-1533	5.7	29
179	Two radical-dependent mechanisms for anaerobic degradation of the globally abundant organosulfur compound dihydroxypropanesulfonate. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 15599-15608	11.5	14
178	Unraveling the iterative type I polyketide synthases hidden in. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 8449-8454	11.5	15
177	A mass spectrometry-based high-throughput screening method for engineering fatty acid synthases with improved production of medium-chain fatty acids. *Biotechnology and Bioengineering*, **2020**, 117, 2131-2138	4.9	13
176	Integrating biocatalysis with chemocatalysis for selective transformations. *Current Opinion in Chemical Biology*, **2020**, 55, 161-170	9.7	44
175	A New Biosensor for Stilbenes and a Cannabinoid Enabled by Genome Mining of a Transcriptional Regulator. *ACS Synthetic Biology*, **2020**, 9, 698-705	5.7	9
174	Unleashing the power of energy storage: Engineering β-oxidation pathways for polyketide production. *Synthetic and Systems Biotechnology*, **2020**, 5, 21-22	4.2	1
173	A Pathway for Degradation of Uracil to Acetyl Coenzyme A in Bacillus megaterium. *Applied and Environmental Microbiology*, **2020**, 86,	4.8	6
172	A genetic toolbox for metabolic engineering of Issatchenkia orientalis. *Metabolic Engineering*, **2020**, 59, 87-97	9.7	14
171	Discovery and Characterization of a Class IV Lanthipeptide with a Nonoverlapping Ring Pattern. *ACS Chemical Biology*, **2020**, 15, 1642-1649	4.9	10

170	DNA punch cards for storing data on native DNA sequences via enzymatic nicking. *Nature Communications*, **2020**, 11, 1742	17.4	32
169	Recent advances in domesticating non-model microorganisms. *Biotechnology Progress*, **2020**, 36, e3008	2.8	10
168	Reconstruction of Lead Acid Battery Negative Electrodes after Hard Sulfation Using Controlled Chelation Chemistry. *Journal of the Electrochemical Society*, **2020**, 167, 120537	3.9	1
167	Activation of Silent Natural Product Biosynthetic Gene Clusters Using Synthetic Biology Tools **2020**, 113-135		0
166	Emerging molecular biology tools and strategies for engineering natural product biosynthesis. *Metabolic Engineering Communications*, **2020**, 10, e00108	6.5	24
165	Identification and Characterization of Citrus Peel Uronic Acid Oxidase. *ChemBioChem*, **2020**, 21, 797-800	3.8	3
164	Computational Tools for Discovering and Engineering Natural Product Biosynthetic Pathways. *IScience*, **2020**, 23, 100795	6.1	21
163	Biosynthetic engineering of the antifungal, anti-MRSA auroramycin. *Microbial Cell Factories*, **2020**, 19, 3	6.4	2
162	An efficient gene knock-in strategy using 5Smodified double-stranded DNA donors with short homology arms. *Nature Chemical Biology*, **2020**, 16, 387-390	11.7	22
161	Stereoconvergent Reduction of Activated Alkenes by a Nicotinamide Free Synergistic Photobiocatalytic System. *ACS Catalysis*, **2020**, 10, 9431-9437	13.1	8
160	Photoenzymatic enantioselective intermolecular radical hydroalkylation. *Nature*, **2020**, 584, 69-74	50.4	72
159	Unlocking natureS biosynthetic potential by directed genome evolution. *Current Opinion in Biotechnology*, **2020**, 66, 95-104	11.4	13
158	A transaldolase-dependent sulfoglycolysis pathway in Bacillus megaterium DSM 1804. *Biochemical and Biophysical Research Communications*, **2020**, 533, 1109-1114	3.4	10
157	Two-Color Imaging of Nonrepetitive Endogenous Loci in Human Cells. *ACS Synthetic Biology*, **2020**, 9, 2502-2514	5.7	1
156	Biosystems design by directed evolution. *AICHE Journal*, **2020**, 66, e16716	3.6	17
155	An extended bacterial reductive pyrimidine degradation pathway that enables nitrogen release from β-alanine. *Journal of Biological Chemistry*, **2019**, 294, 15662-15671	5.4	7
154	A comprehensive genome-scale model for IFO0880 accounting for functional genomics and phenotypic data. *Metabolic Engineering Communications*, **2019**, 9, e00101	6.5	26
153	A Continuing Career in Biocatalysis: Frances H. Arnold. *ACS Catalysis*, **2019**, 9, 9775-9788	13.1	17

152	A gene cluster for taurine sulfur assimilation in an anaerobic human gut bacterium. *Biochemical Journal*, **2019**, 476, 2271-2279	3.8	6
151	Biochemical and structural investigation of sulfoacetaldehyde reductase from. *Biochemical Journal*, **2019**, 476, 733-746	3.8	8
150	A Pathway for Isethionate Dissimilation in Bacillus krulwichiae. *Applied and Environmental Microbiology*, **2019**, 85,	4.8	4
149	Identification and characterization of a new sulfoacetaldehyde reductase from the human gut bacterium. *Bioscience Reports*, **2019**, 39,	4.1	5
148	Building a global alliance of biofoundries. *Nature Communications*, **2019**, 10, 2040	17.4	91
147	Characterization of Cas proteins for CRISPR-Cas editing in streptomycetes. *Biotechnology and Bioengineering*, **2019**, 116, 2330-2338	4.9	16
146	Biochemical and structural investigation of taurine:2-oxoglutarate aminotransferase from. *Biochemical Journal*, **2019**, 476, 1605-1619	3.8	5
145	Highly Efficient Single-Pot Scarless Golden Gate Assembly. *ACS Synthetic Biology*, **2019**, 8, 1047-1054	5.7	17
144	Development of a CRISPR/Cas9 system for high efficiency multiplexed gene deletion in Rhodosporidium toruloides. *Biotechnology and Bioengineering*, **2019**, 116, 2103-2109	4.9	22
143	Radical-mediated C-S bond cleavage in C2 sulfonate degradation by anaerobic bacteria. *Nature Communications*, **2019**, 10, 1609	17.4	22
142	Development of a CRISPR/Cas9-Based Tool for Gene Deletion in. *MSphere*, **2019**, 4,	5	16
141	Towards a fully automated algorithm driven platform for biosystems design. *Nature Communications*, **2019**, 10, 5150	17.4	45
140	Multi-functional genome-wide CRISPR system for high throughput genotype-phenotype mapping. *Nature Communications*, **2019**, 10, 5794	17.4	57
139	Activation of silent biosynthetic gene clusters using transcription factor decoys. *Nature Chemical Biology*, **2019**, 15, 111-114	11.7	51
138	Engineered CRISPR/Cas9 system for multiplex genome engineering of polyploid industrial yeast strains. *Biotechnology and Bioengineering*, **2018**, 115, 1630-1635	4.9	32
137	RNAi assisted genome evolution unveils yeast mutants with improved xylose utilization. *Biotechnology and Bioengineering*, **2018**, 115, 1552-1560	4.9	10
136	Recent advances in metabolic engineering of Saccharomyces cerevisiae: New tools and their applications. *Metabolic Engineering*, **2018**, 50, 85-108	9.7	147
135	In vivo biosensors: mechanisms, development, and applications. *Journal of Industrial Microbiology and Biotechnology*, **2018**, 45, 491-516	4.2	41

134	Expanding the boundary of biocatalysis: design and optimization of in vitro tandem catalytic reactions for biochemical production. *Critical Reviews in Biochemistry and Molecular Biology*, **2018**, 53, 115-129	8.7	28
133	Advancing Metabolic Engineering of Saccharomyces cerevisiae Using the CRISPR/Cas System. *Biotechnology Journal*, **2018**, 13, e1700601	5.6	34
132	Genome-wide identification of natural RNA aptamers in prokaryotes and eukaryotes. *Nature Communications*, **2018**, 9, 1289	17.4	24
131	Biocatalysis for the synthesis of pharmaceuticals and pharmaceutical intermediates. *Bioorganic and Medicinal Chemistry*, **2018**, 26, 1275-1284	3.4	115
130	Pathway Design, Engineering, and Optimization. *Advances in Biochemical Engineering/Biotechnology* , **2018**, 162, 77-116	1.7	7
129	A coupled chlorinase-fluorinase system with a high efficiency of trans-halogenation and a shared substrate tolerance. *Chemical Communications*, **2018**, 54, 9458-9461	5.8	10
128	Genome-scale engineering of Saccharomyces cerevisiae with single-nucleotide precision. *Nature Biotechnology*, **2018**, 36, 505-508	44.5	97
127	Visualizing Spatiotemporal Dynamics of Intercellular Mechanotransmission upon Wounding. *ACS Photonics*, **2018**, 5, 3565-3574	6.3	6
126	Cooperative asymmetric reactions combining photocatalysis and enzymatic catalysis. *Nature*, **2018**, 560, 355-359	50.4	140
125	CRISPR/Cas9-mediated knock-in of an optimized TetO repeat for live cell imaging of endogenous loci. *Nucleic Acids Research*, **2018**, 46, e100	20.1	29
124	Synthetic biology advances and applications in the biotechnology industry: a perspective. *Journal of Industrial Microbiology and Biotechnology*, **2018**, 45, 449-461	4.2	38
123	Quantifying the effects of pollen nutrition on honey bee queen egg laying with a new laboratory system. *PLoS ONE*, **2018**, 13, e0203444	3.7	18
122	Indoleacetate decarboxylase is a glycyl radical enzyme catalysing the formation of malodorant skatole. *Nature Communications*, **2018**, 9, 4224	17.4	21
121	Insights into Cell-Free Conversion of CO2to Chemicals by a Multienzyme Cascade Reaction. *ACS Catalysis*, **2018**, 8, 11085-11093	13.1	54
120	Rapid Discovery of Glycocins through Pathway Refactoring in Escherichia coli. *ACS Chemical Biology*, **2018**, 13, 2966-2972	4.9	19
119	Rapid Screening of Lanthipeptide Analogs via In-Colony Removal of Leader Peptides in Escherichia coli. *Journal of the American Chemical Society*, **2018**, 140, 11884-11888	16.4	13
118	Metabolic Engineering of Saccharomyces cerevisiae Using a Trifunctional CRISPR/Cas System for Simultaneous Gene Activation, Interference, and Deletion. *Methods in Enzymology*, **2018**, 608, 265-276	1.7	2
117	Auroramycin: A Potent Antibiotic from Streptomyces roseosporus by CRISPR-Cas9 Activation. *ChemBioChem*, **2018**, 19, 1716	3.8	28

116	Fully Automated One-Step Synthesis of Single-Transcript TALEN Pairs Using a Biological Foundry. *ACS Synthetic Biology*, **2017**, 6, 678-685	5.7	27
115	Orthogonal Genetic Regulation in Human Cells Using Chemically Induced CRISPR/Cas9 Activators. *ACS Synthetic Biology*, **2017**, 6, 686-693	5.7	29
114	A New Era of Genome Integration-Simply Cut and Paste!. *ACS Synthetic Biology*, **2017**, 6, 601-609	5.7	28
113	Discovery of a Phosphonoacetic Acid Derived Natural Product by Pathway Refactoring. *ACS Synthetic Biology*, **2017**, 6, 217-223	5.7	15
112	Probing the molecular determinants of fluorinase specificity. *Chemical Communications*, **2017**, 53, 2559-2562	5.7	16
111	A Scalable Epitope Tagging Approach for High Throughput ChIP-Seq Analysis. *ACS Synthetic Biology*, **2017**, 6, 1034-1042	5.7	12
110	Combining Rh-Catalyzed Diazocoupling and Enzymatic Reduction To Efficiently Synthesize Enantioenriched 2-Substituted Succinate Derivatives. *ACS Catalysis*, **2017**, 7, 2548-2552	13.1	27
109	Programmable DNA-Guided Artificial Restriction Enzymes. *ACS Synthetic Biology*, **2017**, 6, 752-757	5.7	50
108	Inducible Control of mRNA Transport Using Reprogrammable RNA-Binding Proteins. *ACS Synthetic Biology*, **2017**, 6, 950-956	5.7	7
107	Using natural products for drug discovery: the impact of the genomics era. *Expert Opinion on Drug Discovery*, **2017**, 12, 475-487	6.2	58
106	CRISPR-Cas9 strategy for activation of silent Streptomyces biosynthetic gene clusters. *Nature Chemical Biology*, **2017**,	11.7	164
105	A plug-and-play pathway refactoring workflow for natural product research in Escherichia coli and Saccharomyces cerevisiae. *Biotechnology and Bioengineering*, **2017**, 114, 1847-1854	4.9	22
104	Automated multiplex genome-scale engineering in yeast. *Nature Communications*, **2017**, 8, 15187	17.4	114
103	Engineering biological systems using automated biofoundries. *Metabolic Engineering*, **2017**, 42, 98-108	9.7	97
102	Twin-primer non-enzymatic DNA assembly: an efficient and accurate multi-part DNA assembly method. *Nucleic Acids Research*, **2017**, 45, e94	20.1	33
101	Breaking the silence: new strategies for discovering novel natural products. *Current Opinion in Biotechnology*, **2017**, 48, 21-27	11.4	76
100	Targeting Specificity of the CRISPR/Cas9 System. *ACS Synthetic Biology*, **2017**, 6, 1609-1613	5.7	15
99	Profiling of Microbial Colonies for High-Throughput Engineering of Multistep Enzymatic Reactions via Optically Guided Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry. *Journal of the American Chemical Society*, **2017**, 139, 12466-12473	16.4	35

98	Combinatorial metabolic engineering using an orthogonal tri-functional CRISPR system. *Nature Communications*, **2017**, 8, 1688	17.4	164
97	Discovery and engineering of a 1-butanol biosensor in Saccharomyces cerevisiae. *Bioresource Technology*, **2017**, 245, 1343-1351	11	31
96	Flexible and Versatile Strategy for the Construction of Large Biochemical Pathways. *ACS Synthetic Biology*, **2016**, 5, 46-52	5.7	13
95	TALE proteins search DNA using a rotationally decoupled mechanism. *Nature Chemical Biology*, **2016**, 12, 831-7	11.7	37
94	Directed Evolution of a Fluorinase for Improved Fluorination Efficiency with a Non-native Substrate. *Angewandte Chemie*, **2016**, 128, 14489-14492	3.6	13
93	A brief overview of synthetic biology research programs and roadmap studies in the United States. *Synthetic and Systems Biotechnology*, **2016**, 1, 258-264	4.2	18
92	High-Efficiency Genome Editing of Streptomyces Species by an Engineered CRISPR/Cas System. *Methods in Enzymology*, **2016**, 575, 271-84	1.7	16
91	Metabolic engineering of a synergistic pathway for n-butanol production in Saccharomyces cerevisiae. *Scientific Reports*, **2016**, 6, 25675	4.9	38
90	Identification of an important motif that controls the activity and specificity of sugar transporters. *Biotechnology and Bioengineering*, **2016**, 113, 1460-7	4.9	13
89	CRISPR/Cas9 mediated targeted mutagenesis of the fast growing cyanobacterium Synechococcus elongatus UTEX 2973. *Microbial Cell Factories*, **2016**, 15, 115	6.4	136
88	Production of Adipic Acid from Sugar Beet Residue by Combined Biological and Chemical Catalysis. *ChemCatChem*, **2016**, 8, 1500-1506	5.2	38
87	Functional Reconstitution of a Pyruvate Dehydrogenase in the Cytosol of Saccharomyces cerevisiae through Lipoylation Machinery Engineering. *ACS Synthetic Biology*, **2016**, 5, 689-97	5.7	14
86	Design and engineering of intracellular-metabolite-sensing/regulation gene circuits in Saccharomyces cerevisiae. *Biotechnology and Bioengineering*, **2016**, 113, 206-15	4.9	52
85	A highly efficient single-step, markerless strategy for multi-copy chromosomal integration of large biochemical pathways in Saccharomyces cerevisiae. *Metabolic Engineering*, **2016**, 33, 19-27	9.7	134
84	Tandem Reactions Combining Biocatalysts and Chemical Catalysts for Asymmetric Synthesis. *Catalysts*, **2016**, 6, 194	4	34
83	Construction of plasmids with tunable copy numbers in Saccharomyces cerevisiae and their applications in pathway optimization and multiplex genome integration. *Biotechnology and Bioengineering*, **2016**, 113, 2462-73	4.9	40
82	Combinatorial pathway engineering for optimized production of the anti-malarial FR900098. *Biotechnology and Bioengineering*, **2016**, 113, 384-92	4.9	14
81	Engineering microbial hosts for production of bacterial natural products. *Natural Product Reports*, **2016**, 33, 963-87	15.1	95

80	Characterization of Bacillus subtilis Colony Biofilms via Mass Spectrometry and Fluorescence Imaging. *Journal of Proteome Research*, **2016**, 15, 1955-62	5.6	22
79	Directed Evolution of a Fluorinase for Improved Fluorination Efficiency with a Non-native Substrate. *Angewandte Chemie - International Edition*, **2016**, 55, 14277-14280	16.4	29
78	Accelerated genome engineering through multiplexing. *Wiley Interdisciplinary Reviews: Systems Biology and Medicine*, **2016**, 8, 5-21	6.6	15
77	Direct observation of TALE protein dynamics reveals a two-state search mechanism. *Nature Communications*, **2015**, 6, 7277	17.4	56
76	Development of a Synthetic Malonyl-CoA Sensor in Saccharomyces cerevisiae for Intracellular Metabolite Monitoring and Genetic Screening. *ACS Synthetic Biology*, **2015**, 4, 1308-15	5.7	106
75	Development of a One-Pot Tandem Reaction Combining Ruthenium-Catalyzed Alkene Metathesis and Enantioselective Enzymatic Oxidation To Produce Aryl Epoxides. *ACS Catalysis*, **2015**, 5, 3817-3822	13.1	54
74	Recent advances in combinatorial biosynthesis for drug discovery. *Drug Design, Development and Therapy*, **2015**, 9, 823-33	4.4	40
73	Regulatory RNA-assisted genome engineering in microorganisms. *Current Opinion in Biotechnology*, **2015**, 36, 85-90	11.4	16
72	Recent advances in biosynthesis of fatty acids derived products in Saccharomyces cerevisiae via enhanced supply of precursor metabolites. *Journal of Industrial Microbiology and Biotechnology*, **2015**, 42, 437-51	4.2	31
71	High-efficiency multiplex genome editing of Streptomyces species using an engineered CRISPR/Cas system. *ACS Synthetic Biology*, **2015**, 4, 723-8	5.7	355
70	Rapid prototyping of microbial cell factories via genome-scale engineering. *Biotechnology Advances* , **2015**, 33, 1420-32	17.8	30
69	RNAi-assisted genome evolution in Saccharomyces cerevisiae for complex phenotype engineering. *ACS Synthetic Biology*, **2015**, 4, 283-91	5.7	63
68	High Throughput Screening and Selection Methods for Directed Enzyme Evolution. *Industrial & Engineering Chemistry Research*, **2015**, 54, 4011-4020	3.9	109
67	Reversal of the β-oxidation cycle in Saccharomyces cerevisiae for production of fuels and chemicals. *ACS Synthetic Biology*, **2015**, 4, 332-41	5.7	64
66	Homology-integrated CRISPR-Cas (HI-CRISPR) system for one-step multigene disruption in Saccharomyces cerevisiae. *ACS Synthetic Biology*, **2015**, 4, 585-94	5.7	231
65	Recent advances in DNA assembly technologies. *FEMS Yeast Research*, **2015**, 15, 1-9	3.1	85
64	A Rewritable, Random-Access DNA-Based Storage System. *Scientific Reports*, **2015**, 5, 14138	4.9	123
63	Building biological foundries for next-generation synthetic biology. *Science China Life Sciences*, **2015**, 58, 658-65	8.5	16

62	DNA-Based Storage: Trends and Methods. *IEEE Transactions on Molecular, Biological, and Multi-Scale Communications*, **2015**, 1, 230-248	2.3	93
61	Orthogonal Fatty Acid Biosynthetic Pathway Improves Fatty Acid Ethyl Ester Production in Saccharomyces cerevisiae. *ACS Synthetic Biology*, **2015**, 4, 808-14	5.7	30
60	Improving and repurposing biocatalysts via directed evolution. *Current Opinion in Chemical Biology*, **2015**, 25, 55-64	9.7	199
59	SunnyTALEN: a second-generation TALEN system for human genome editing. *Biotechnology and Bioengineering*, **2014**, 111, 683-91	4.9	20
58	Cooperative tandem catalysis by an organometallic complex and a metalloenzyme. *Angewandte Chemie - International Edition*, **2014**, 53, 465-9	16.4	115
57	DNA assembly techniques for next-generation combinatorial biosynthesis of natural products. *Journal of Industrial Microbiology and Biotechnology*, **2014**, 41, 469-77	4.2	47
56	Exploiting Issatchenkia orientalis SD108 for succinic acid production. *Microbial Cell Factories*, **2014**, 13, 121	6.4	46
55	Tandem Catalytic Conversion of Glucose to 5-Hydroxymethylfurfural with an Immobilized Enzyme and a Solid Acid. *ACS Catalysis*, **2014**, 4, 2165-2168	13.1	84
54	Modular assembly of designer PUF proteins for specific post-transcriptional regulation of endogenous RNA. *Journal of Biological Engineering*, **2014**, 8, 7	6.3	40
53	Genome-wide RNAi screen reveals the E3 SUMO-protein ligase gene SIZ1 as a novel determinant of furfural tolerance in Saccharomyces cerevisiae. *Biotechnology for Biofuels*, **2014**, 7, 78	7.8	29
52	FairyTALE: a high-throughput TAL effector synthesis platform. *ACS Synthetic Biology*, **2014**, 3, 67-73	5.7	33
51	Design and construction of acetyl-CoA overproducing Saccharomyces cerevisiae strains. *Metabolic Engineering*, **2014**, 24, 139-49	9.7	154
50	Cooperative Tandem Catalysis by an Organometallic Complex and a Metalloenzyme. *Angewandte Chemie*, **2014**, 126, 475-479	3.6	38
49	Metabolic Engineering Strategies for Production of Commodity and Fine Chemicals: Escherichia coli as a Platform Organism **2014**, 591-604		
48	Directed evolution of a cellodextrin transporter for improved biofuel production under anaerobic conditions in Saccharomyces cerevisiae. *Biotechnology and Bioengineering*, **2014**, 111, 1521-31	4.9	32
47	Metabolic engineering of a Saccharomyces cerevisiae strain capable of simultaneously utilizing glucose and galactose to produce enantiopure (2R,3R)-butanediol. *Metabolic Engineering*, **2014**, 23, 92-9	9.7	76
46	Directed evolution of a highly efficient cellobiose utilizing pathway in an industrial Saccharomyces cerevisiae strain. *Biotechnology and Bioengineering*, **2013**, 110, 2874-81	4.9	31
45	Directed evolution of a cellobiose utilization pathway in Saccharomyces cerevisiae by simultaneously engineering multiple proteins. *Microbial Cell Factories*, **2013**, 12, 61	6.4	45

44	Refactoring the silent spectinabilin gene cluster using a plug-and-play scaffold. *ACS Synthetic Biology*, **2013**, 2, 662-9	5.7	120
43	Multistep One-Pot Reactions Combining Biocatalysts and Chemical Catalysts for Asymmetric Synthesis. *ACS Catalysis*, **2013**, 3, 2856-2864	13.1	177
42	Investigating xylose metabolism in recombinant Saccharomyces cerevisiae via 13C metabolic flux analysis. *Microbial Cell Factories*, **2013**, 12, 114	6.4	41
41	Combinatorial design of a highly efficient xylose-utilizing pathway in Saccharomyces cerevisiae for the production of cellulosic biofuels. *Applied and Environmental Microbiology*, **2013**, 79, 931-41	4.8	70
40	Directed evolution as a powerful synthetic biology tool. *Methods*, **2013**, 60, 81-90	4.6	85
39	Customized optimization of metabolic pathways by combinatorial transcriptional engineering. *Methods in Molecular Biology*, **2013**, 985, 177-209	1.4	10
38	Transcription activator-like effector nucleases (TALENs): a highly efficient and versatile tool for genome editing. *Biotechnology and Bioengineering*, **2013**, 110, 1811-21	4.9	167
37	Activation and characterization of a cryptic polycyclic tetramate macrolactam biosynthetic gene cluster. *Nature Communications*, **2013**, 4, 2894	17.4	165
36	Directed Evolution: Past, Present and Future. *AICHE Journal*, **2013**, 59, 1432-1440	3.6	93
35	Biocatalyst development by directed evolution. *Bioresource Technology*, **2012**, 115, 117-25	11	102
34	Customized optimization of metabolic pathways by combinatorial transcriptional engineering. *Nucleic Acids Research*, **2012**, 40, e142	20.1	193
33	DNA assembler: a synthetic biology tool for characterizing and engineering natural product gene clusters. *Methods in Enzymology*, **2012**, 517, 203-24	1.7	27
32	Optimized TAL effector nucleases (TALENs) for use in treatment of sickle cell disease. *Molecular BioSystems*, **2012**, 8, 1255-63		112
31	Recent advances in targeted genome engineering in mammalian systems. *Biotechnology Journal*, **2012**, 7, 1074-87	5.6	41
30	Cloning and characterization of a panel of constitutive promoters for applications in pathway engineering in Saccharomyces cerevisiae. *Biotechnology and Bioengineering*, **2012**, 109, 2082-92	4.9	140
29	Rapid characterization and engineering of natural product biosynthetic pathways via DNA assembler. *Molecular BioSystems*, **2011**, 7, 1056-9		76
28	Engineering microbial factories for synthesis of value-added products. *Journal of Industrial Microbiology and Biotechnology*, **2011**, 38, 873-90	4.2	169
27	Directed evolution of the nonribosomal peptide synthetase AdmK generates new andrimid derivatives in vivo. *Chemistry and Biology*, **2011**, 18, 601-7		91

26	Temperature and strain-rate dependent fracture strength of graphene. *Journal of Applied Physics*, **2010**, 108, 064321	2.5	258
25	Deciphering the late biosynthetic steps of antimalarial compound FR-900098. *Chemistry and Biology* , **2010**, 17, 57-64		27
24	Size and surface orientation effects on thermal expansion coefficient of one-dimensional silicon nanostructures. *Journal of Applied Physics*, **2009**, 105, 104309	2.5	12
23	Size and chirality dependent elastic properties of graphene nanoribbons under uniaxial tension. *Nano Letters*, **2009**, 9, 3012-5	11.5	653
22	DNA assembler, an in vivo genetic method for rapid construction of biochemical pathways. *Nucleic Acids Research*, **2009**, 37, e16	20.1	489
21	Evolution in reverse: engineering a D-xylose-specific xylose reductase. *ChemBioChem*, **2008**, 9, 1213-5	3.8	46
20	Cloning, expression, and biochemical characterization of Streptomyces rubellomurinus genes required for biosynthesis of antimalarial compound FR900098. *Chemistry and Biology*, **2008**, 15, 765-70		70
19	High-throughput Screening Methods Developed for Oxidoreductases **2006**, 77-93		8
18	Rapid creation of a novel protein function by in vitro coevolution. *Journal of Molecular Biology*, **2005**, 348, 1273-82	6.5	41
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