Hal S Alper

List of Publications by Year
in descending order

159 papers	12,905 citations	22153 59 h-index	25787 108 g-index
167 all docs	167 docs citations	167 times ranked	8065 citing authors

#	Article	IF	Citations
1	Intracellular biosensor-based dynamic regulation to manipulate gene expression at the spatiotemporal level. Critical Reviews in Biotechnology, 2023, 43, 646-663.	9.0	6
2	Microbial valorization of underutilized and nonconventional waste streams. Journal of Industrial Microbiology and Biotechnology, 2022, 49, .	3.0	13
3	Biocompatible Materials Enabled by Biobased Production of Pyomelanin Isoforms Using an Engineered <i>Yarrowia lipolytica</i>. Advanced Functional Materials, 2022, 32, 2109366.	14.9	5
4	Shifting the distribution: modulation of the lipid profile in Yarrowia lipolytica via iron content. Applied Microbiology and Biotechnology, 2022, 106, 1571-1581.	3.6	9
5	Opportunities Surrounding the Use of Sargassum Biomass as Precursor of Biogas, Bioethanol, and Biodiesel Production. Frontiers in Marine Science, 2022, 8, .	2.5	15
6	Evolving a Generalist Biosensor for Bicyclic Monoterpenes. ACS Synthetic Biology, 2022, 11, 265-272.	3.8	31
7	Substrates for Metabolic Engineering Special Issue. Metabolic Engineering, 2022, , .	7.0	0
8	Considering Strain Variation and Non-Type Strains for Yeast Metabolic Engineering Applications. Life, 2022, 12, 510.	2.4	9
9	Machine learning-aided engineering of hydrolases for PET depolymerization. Nature, 2022, 604, 662-667.	27.8	396
10	Using fungible biosensors to evolve improved alkaloid biosyntheses. Nature Chemical Biology, 2022, 18, 981-989.	8.0	35
11	Tools and strategies for metabolic engineering special issue - Editorial introduction. Metabolic Engineering, 2021, 63, 1.	7.0	0
12	Applications, challenges, and needs for employing synthetic biology beyond the lab. Nature Communications, 2021, 12, 1390.	12.8	94
13	Bio-synthesis of food additives and colorants-a growing trend in future food. Biotechnology Advances, 2021, 47, 107694.	11.7	47
14	Valorization of pelagic sargassum biomass into sustainable applications: Current trends and challenges. Journal of Environmental Management, 2021, 283, 112013.	7.8	50
15	Modular biocatalysis for polyamines. Nature Catalysis, 2021, 4, 449-450.	34.4	1
16	Bioproduced Proteins On Demand (Bio-POD) in hydrogels using Pichia pastoris. Bioactive Materials, 2021, 6, 2390-2399.	15.6	13
17	An integrated in vivo/in vitro framework to enhance cell-free biosynthesis with metabolically rewired yeast extracts. Nature Communications, 2021, 12, 5139.	12.8	16
18	Data-Driven Approach to Decipher the Role of Triglyceride Composition on the Thermomechanical Properties of Thermosetting Polymers Using Vegetable and Microbial Oils. ACS Applied Polymer Materials, 2021, 3, 4485-4494.	4.4	4

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19	Sorting for secreted molecule production using a biosensor-in-microdroplet approach. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	15
20	Development of a growth coupled and multi-layered dynamic regulation network balancing malonyl-CoA node to enhance (2S)-naringenin biosynthesis in Escherichia coli. Metabolic Engineering, 2021, 67, 41-52.	7.0	63
21	Genome Engineering of Yarrowia lipolytica with the PiggyBac Transposon System. Methods in Molecular Biology, 2021, 2307, 1-24.	0.9	2
22	Mapping enzyme catalysis with metabolic biosensing. Nature Communications, 2021, 12, 6803.	12.8	17
23	Enabling commercial success of industrial biotechnology. Science, 2021, 374, 1563-1565.	12.6	10
24	Metabolic engineering efforts for chemical products special issue. Metabolic Engineering, 2020, 58, 1.	7.0	3
25	Producing Biochemicals in <i>Yarrowia lipolytica</i> from Xylose through a Strain Mating Approach. Biotechnology Journal, 2020, 15, e1900304.	3.5	28
26	Engineering 4-coumaroyl-CoA derived polyketide production in Yarrowia lipolytica through a Î²-oxidation mediated strategy. Metabolic Engineering, 2020, 57, 174-181.	7.0	115
27	Microdroplet-Assisted Screening of Biomolecule Production for Metabolic Engineering Applications. Trends in Biotechnology, 2020, 38, 701-714.	9.3	45
28	Direct production of fatty alcohols from glucose using engineered strains of Yarrowia lipolytica. Metabolic Engineering Communications, 2020, 10, e00105.	3.6	37
29	Bidirectional titration of yeast gene expression using a pooled CRISPR guide RNA approach. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18424-18430.	7.1	19
30	De novo resveratrol production through modular engineering of an Escherichia coliâ€“Saccharomyces cerevisiae co-culture. Microbial Cell Factories, 2020, 19, 143.	4.0	63
31	Design, Evolution, and Characterization of a Xylose Biosensor in <i>Escherichia coli</i> Using the XylR/<i>xylO</i> System with an Expanded Operating Range. ACS Synthetic Biology, 2020, 9, 2714-2722.	3.8	10
32	Valorizing a hydrothermal liquefaction aqueous phase through co-production of chemicals and lipids using the oleaginous yeast Yarrowia lipolytica. Bioresource Technology, 2020, 313, 123639.	9.6	30
33	Progress in the metabolic engineering of bio-based lactams and their Ï‰-amino acids precursors. Biotechnology Advances, 2020, 43, 107587.	11.7	17
34	Improving Spinach2-and Broccoli-based biosensors for single and double analytes. Biotechnology Notes, 2020, 1, 2-8.	1.2	4
35	Non-conventional hosts for the production of fuels and chemicals. Current Opinion in Chemical Biology, 2020, 59, 15-22.	6.1	22
36	Compartmentalized microbes and co-cultures in hydrogels for on-demand bioproduction and preservation. Nature Communications, 2020, 11, 563.	12.8	134

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37	Strategies for directed and adapted evolution as part of microbial strain engineering. Journal of Chemical Technology and Biotechnology, 2019, 94, 366-376.	3.2	18
38	Improving ionic liquid tolerance in <i>Saccharomyces cerevisiae</i> through heterologous expression and directed evolution of an <i>ILT1</i> homolog from <i>Yarrowia lipolytica</i>. Journal of Industrial Microbiology and Biotechnology, 2019, 46, 1715-1724.	3.0	17
39	Systems Metabolic Engineering Approaches for Rewiring Cells. Biotechnology Journal, 2019, 14, e1900312.	3.5	4
40	Identification and characterization of novel xylose isomerases from a Bos taurus fecal metagenome. Applied Microbiology and Biotechnology, 2019, 103, 9465-9477.	3.6	8
41	Yarrowia lipolytica: more than an oleaginous workhorse. Applied Microbiology and Biotechnology, 2019, 103, 9251-9262.	3.6	80
42	Enhanced scale and scope of genome engineering and regulation using CRISPR/Cas in<i>Saccharomyces cerevisiae</i>. FEMS Yeast Research, 2019, 19, .	2.3	11
43	Validating genome-wide CRISPR-Cas9 function improves screening in the oleaginous yeast Yarrowia lipolytica. Metabolic Engineering, 2019, 55, 102-110.	7.0	70
44	Design and Evaluation of Synthetic Terminators for Regulating Mammalian Cell Transgene Expression. ACS Synthetic Biology, 2019, 8, 1263-1275.	3.8	7
45	Design and synthesis of synthetic UP elements for modulation of gene expression in Escherichia coli. Synthetic and Systems Biotechnology, 2019, 4, 99-106.	3.7	10
46	Metabolic engineering of microbial cell factories for production of nutraceuticals. Microbial Cell Factories, 2019, 18, 46.	4.0	91
47	Systems Metabolic Engineering Meets Machine Learning: A New Era for Dataâ€Driven Metabolic Engineering. Biotechnology Journal, 2019, 14, e1800416.	3.5	45
48	CRISPR-PIN: Modifying gene position in the nucleus via dCas9-mediated tethering. Synthetic and Systems Biotechnology, 2019, 4, 73-78.	3.7	9
49	Recent advancements in fungal-derived fuel and chemical production and commercialization. Current Opinion in Biotechnology, 2019, 57, 1-9.	6.6	39
50	Expanding the Chemical Palette of Industrial Microbes: Metabolic Engineering for Type III PKSâ€Derived Polyketides. Biotechnology Journal, 2019, 14, e1700463.	3.5	34
51	Largely enhanced bioethanol production through the combined use of lignin-modified sugarcane and xylose fermenting yeast strain. Bioresource Technology, 2018, 256, 312-320.	9.6	35
52	Developing a <i>piggyBac</i> Transposon System and Compatible Selection Markers for Insertional Mutagenesis and Genome Engineering in <i>Yarrowia lipolytica</i>. Biotechnology Journal, 2018, 13, e1800022.	3.5	62
53	Metabolic pathway engineering. Synthetic and Systems Biotechnology, 2018, 3, 1-2.	3.7	15
54	Modular Ligation Extension of Guide RNA Operons (LEGO) for Multiplexed dCas9 Regulation of Metabolic Pathways in <i>Saccharomyces cerevisiae</i>. Biotechnology Journal, 2018, 13, e1700582.	3.5	31

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55	Rewiring <i>Yarrowia lipolytica</i> toward triacetic acid lactone for materials generation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2096-2101.	7.1	144
56	Expanding beyond canonical metabolism: Interfacing alternative elements, synthetic biology, and metabolic engineering. Synthetic and Systems Biotechnology, 2018, 3, 20-33.	3.7	12
57	A comparative analysis of single cell and droplet-based FACS for improving production phenotypes: Riboflavin overproduction in Yarrowia lipolytica. Metabolic Engineering, 2018, 47, 346-356.	7.0	66
58	Editorial overview: Energy biotechnology: Biotechnology solutions for our energy needs. Current Opinion in Biotechnology, 2018, 50, v-vi.	6.6	0
59	T7 Polymerase Expression of Guide RNAs <i>in vivo</i> Allows Exportable CRISPR-Cas9 Editing in Multiple Yeast Hosts. ACS Synthetic Biology, 2018, 7, 1075-1084.	3.8	50
60	Thermodynamic and first-principles biomolecular simulations applied to synthetic biology: promoter and aptamer designs. Molecular Systems Design and Engineering, 2018, 3, 19-37.	3.4	10
61	Editorial Introduction. Metabolic Engineering, 2018, 50, 1.	7.0	1
62	Navigating genetic diversity by painting the bacteria red. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10824-10826.	7.1	0
63	Production of Î±-linolenic acid in Yarrowia lipolytica using low-temperature fermentation. Applied Microbiology and Biotechnology, 2018, 102, 8809-8816.	3.6	52
64	Production of optically pure <scp>l</scp>(+)-lactic acid from waste plywood chips using an isolated thermotolerant <i>Enterococcus faecalis</i> SI at a pilot scale. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 961-970.	3.0	23
65	High-efficiency transformation of Yarrowia lipolytica using electroporation. FEMS Yeast Research, 2018, 18, .	2.3	15
66	Metabolic engineering in the host Yarrowia lipolytica. Metabolic Engineering, 2018, 50, 192-208.	7.0	157
67	Condition-specific promoter activities in Saccharomyces cerevisiae. Microbial Cell Factories, 2018, 17, 58.	4.0	39
68	Engineering <i>Yarrowia lipolytica</i> for the production of cyclopropanated fatty acids. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 881-888.	3.0	19
69	Engineering a Glucosamine-6-phosphate Responsive <i>glmS</i> Ribozyme Switch Enables Dynamic Control of Metabolic Flux in <i>Bacillus subtilis</i> for Overproduction of <i>N</i>-Acetylglucosamine. ACS Synthetic Biology, 2018, 7, 2423-2435.	3.8	49
70	An enzyme-coupled assay enables rapid protein engineering for geraniol production in yeast. Biochemical Engineering Journal, 2018, 139, 95-100.	3.6	16
71	Synthetic Biology Expands the Industrial Potential of Yarrowia lipolytica. Trends in Biotechnology, 2018, 36, 1085-1095.	9.3	107
72	Ameliorating the Metabolic Burden of the Co-expression of Secreted Fungal Cellulases in a High Lipid-Accumulating Yarrowia lipolytica Strain by Medium C/N Ratio and a Chemical Chaperone. Frontiers in Microbiology, 2018, 9, 3276.	3.5	20

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73	Systematic testing of enzyme perturbation sensitivities via graded dCas9 modulation in Saccharomyces cerevisiae. Metabolic Engineering, 2017, 40, 14-22.	7.0	95
74	Biosensorâ€Enabled Directed Evolution to Improve Muconic Acid Production in <i>Saccharomyces cerevisiae</i>. Biotechnology Journal, 2017, 12, 1600687.	3.5	98
75	RNA-aptamers-in-droplets (RAPID) high-throughput screening for secretory phenotypes. Nature Communications, 2017, 8, 332.	12.8	112
76	Harnessing Microbial Cells Through Advanced Technologies and Conventional Strategies. Biotechnology Journal, 2017, 12, 1700558.	3.5	0
77	Enabling tools for high-throughput detection of metabolites: Metabolic engineering and directed evolution applications. Biotechnology Advances, 2017, 35, 950-970.	11.7	97
78	Yeast Terminator Function Can Be Modulated and Designed on the Basis of Predictions of Nucleosome Occupancy. ACS Synthetic Biology, 2017, 6, 2086-2095.	3.8	26
79	Enabling Graded and Large-Scale Multiplex of Desired Genes Using a Dual-Mode dCas9 Activator in <i>Saccharomyces cerevisiae</i>. ACS Synthetic Biology, 2017, 6, 1931-1943.	3.8	53
80	Yarrowia lipolytica as a Cell Factory for Oleochemical Biotechnology. , 2017, , 1-19.		1
81	Coordinated transcription factor and promoter engineering to establish strong expression elements in <i>Saccharomyces cerevisiae</i>. Biotechnology Journal, 2016, 11, 866-876.	3.5	36
82	Identifying and retargeting transcriptional hot spots in the human genome. Biotechnology Journal, 2016, 11, 1100-1109.	3.5	21
83	Central metabolic nodes for diverse biochemical production. Current Opinion in Chemical Biology, 2016, 35, 37-42.	6.1	30
84	Enabling glucose/xylose co-transport in yeast through the directed evolution of a sugar transporter. Applied Microbiology and Biotechnology, 2016, 100, 10215-10223.	3.6	65
85	Identification of gene knockdown targets conferring enhanced isobutanol and 1-butanol tolerance to Saccharomyces cerevisiae using a tunable RNAi screening approach. Applied Microbiology and Biotechnology, 2016, 100, 10005-10018.	3.6	21
86	Enabling xylose utilization in <i>Yarrowia lipolytica</i> for lipid production. Biotechnology Journal, 2016, 11, 1230-1240.	3.5	90
87	In vivo continuous evolution of genes and pathways in yeast. Nature Communications, 2016, 7, 13051.	12.8	106
88	Transcriptomics-Guided Design of Synthetic Promoters for a Mammalian System. ACS Synthetic Biology, 2016, 5, 1455-1465.	3.8	24
89	Promoter and Terminator Discovery and Engineering. Advances in Biochemical Engineering/Biotechnology, 2016, 162, 21-44.	1.1	25
90	Improvement of lactic acid production in <i>Saccharomyces cerevisiae</i> by a deletion of <i>ssb1</i>. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 87-96.	3.0	20

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91	Bioprospecting and evolving alternative xylose and arabinose pathway enzymes for use in Saccharomyces cerevisiae. Applied Microbiology and Biotechnology, 2016, 100, 2487-2498.	3.6	11
92	Synthetic biology and molecular genetics in non-conventional yeasts: Current tools and future advances. Fungal Genetics and Biology, 2016, 89, 126-136.	2.1	166
93	Yarrowia lipolytica as a Cell Factory for Oleochemical Biotechnology. , 2016, , 1-18.		2
94	Xylan catabolism is improved by blending bioprospecting and metabolic pathway engineering in <i>Saccharomyces cerevisiae</i>. Biotechnology Journal, 2015, 10, 575-575.	3.5	8
95	Synthetic Biology for Specialty Chemicals. Annual Review of Chemical and Biomolecular Engineering, 2015, 6, 35-52.	6.8	24
96	Short Synthetic Terminators for Improved Heterologous Gene Expression in Yeast. ACS Synthetic Biology, 2015, 4, 824-832.	3.8	174
97	Advances and current limitations in transcript-level control of gene expression. Current Opinion in Biotechnology, 2015, 34, 98-104.	6.6	54
98	Surveying the lipogenesis landscape in Yarrowia lipolytica through understanding the function of a Mga2p regulatory protein mutant. Metabolic Engineering, 2015, 31, 102-111.	7.0	66
99	The development and characterization of synthetic minimal yeast promoters. Nature Communications, 2015, 6, 7810.	12.8	201
100	An evolutionary metabolic engineering approach for enhancing lipogenesis in Yarrowia lipolytica. Metabolic Engineering, 2015, 29, 36-45.	7.0	126
101	Metabolic engineering of Yarrowia lipolytica for itaconic acid production. Metabolic Engineering, 2015, 32, 66-73.	7.0	119
102	Metabolic engineering of strains: from industrial-scale to lab-scale chemical production. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 423-436.	3.0	50
103	A condition-specific codon optimization approach for improved heterologous gene expression in Saccharomyces cerevisiae. BMC Systems Biology, 2014, 8, 33.	3.0	83
104	Metabolic engineering of Saccharomyces cerevisiae for itaconic acid production. Applied Microbiology and Biotechnology, 2014, 98, 8155-8164.	3.6	87
105	Harnessing Yarrowia lipolytica lipogenesis to create a platform for lipid and biofuel production. Nature Communications, 2014, 5, 3131.	12.8	488
106	The synthetic biology toolbox for tuning gene expression in yeast. FEMS Yeast Research, 2014, 15, n/a-n/a.	2.3	56
107	Optimization of a Yeast RNA Interference System for Controlling Gene Expression and Enabling Rapid Metabolic Engineering. ACS Synthetic Biology, 2014, 3, 307-313.	3.8	67
108	The genome editing toolbox: a spectrum of approaches for targeted modification. Current Opinion in Biotechnology, 2014, 30, 87-94.	6.6	31

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109	Increasing expression level and copy number of a<i>Yarrowia lipolytica</i>plasmid through regulated centromere function. FEMS Yeast Research, 2014, 14, n/a-n/a.	2.3	43
110	Systematic and evolutionary engineering of a xylose isomerase-based pathway in Saccharomyces cerevisiae for efficient conversion yields. Biotechnology for Biofuels, 2014, 7, 122.	6.2	61
111	Draft Genome Sequence of the Oleaginous Yeast Yarrowia lipolytica PO1f, a Commonly Used Metabolic Engineering Host. Genome Announcements, 2014, 2, .	0.8	59
112	Rewiring yeast sugar transporter preference through modifying a conserved protein motif. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 131-136.	7.1	151
113	Design of synthetic yeast promoters via tuning of nucleosome architecture. Nature Communications, 2014, 5, 4002.	12.8	123
114	Systematic and evolutionary engineering of a xylose isomerase-based pathway in. Biotechnology for Biofuels, 2014, 7, 122.	6.2	65
115	Expanding the metabolic engineering toolbox with directed evolution. Biotechnology Journal, 2013, 8, 1397-1410.	3.5	43
116	Model-based design of synthetic, biological systems. Chemical Engineering Science, 2013, 103, 2-11.	3.8	18
117	Metabolic engineering of muconic acid production in Saccharomyces cerevisiae. Metabolic Engineering, 2013, 15, 55-66.	7.0	251
118	Generalizing a hybrid synthetic promoter approach in Yarrowia lipolytica. Applied Microbiology and Biotechnology, 2013, 97, 3037-3052.	3.6	107
119	Characterization of plasmid burden and copy number in<i>Saccharomyces cerevisiae</i>for optimization of metabolic engineering applications. FEMS Yeast Research, 2013, 13, 107-116.	2.3	185
120	Use of expression-enhancing terminators in Saccharomyces cerevisiae to increase mRNA half-life and improve gene expression control for metabolic engineering applications. Metabolic Engineering, 2013, 19, 88-97.	7.0	171
121	Evaluating the influence of selection markers on obtaining selected pools and stable cell lines in human cells. Biotechnology Journal, 2013, 8, 811-821.	3.5	36
122	Frontiers of yeast metabolic engineering: diversifying beyond ethanol and Saccharomyces. Current Opinion in Biotechnology, 2013, 24, 1023-1030.	6.6	98
123	Heterologous production of pentane in the oleaginous yeast Yarrowia lipolytica. Journal of Biotechnology, 2013, 165, 184-194.	3.8	95
124	Promoter engineering: Recent advances in controlling transcription at the most fundamental level. Biotechnology Journal, 2013, 8, 46-58.	3.5	277
125	Editorial: How multiplexed tools and approaches speed up the progress of metabolic engineering. Biotechnology Journal, 2013, 8, 506-507.	3.5	5
126	Expanding the chemical palate of cells by combining systems biology and metabolic engineering. Metabolic Engineering, 2012, 14, 289-297.	7.0	131

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127	Directed Evolution of Xylose Isomerase for Improved Xylose Catabolism and Fermentation in the Yeast Saccharomyces cerevisiae. Applied and Environmental Microbiology, 2012, 78, 5708-5716.	3.1	136
128	Evolution of an alkane-inducible biosensor for increased responsiveness to short-chain alkanes. Journal of Biotechnology, 2012, 158, 75-79.	3.8	46
129	A molecular transporter engineering approach to improving xylose catabolism in Saccharomyces cerevisiae. Metabolic Engineering, 2012, 14, 401-411.	7.0	116
130	Emerging synthetic biology tools for engineering mammalian cell systems and expediting cell line development. Current Opinion in Chemical Engineering, 2012, 1, 403-410.	7.8	3
131	CONVERTING CELLS INTO CELLULAR FACTORIES. Computational and Structural Biotechnology Journal, 2012, 3, e201210001.	4.1	0
132	Innovation at the intersection of synthetic and systems biology. Current Opinion in Biotechnology, 2012, 23, 712-717.	6.6	29
133	Building synthetic cell systems from the ground up. Current Opinion in Biotechnology, 2012, 23, 641-643.	6.6	1
134	Linking Yeast Gcn5p Catalytic Function and Gene Regulation Using a Quantitative, Graded Dominant Mutant Approach. PLoS ONE, 2012, 7, e36193.	2.5	12
135	Using the Cre/<i>lox</i> system for targeted integration into the human genome: <i>lox</i>FASâ€‹<i>lox</i>P pairing and delayed introduction of Cre DNA improve gene swapping efficiency. Biotechnology Journal, 2012, 7, 898-908.	3.5	22
136	Controlling promoter strength and regulation in <i>Saccharomyces cerevisiae</i> using synthetic hybrid promoters. Biotechnology and Bioengineering, 2012, 109, 2884-2895.	3.3	247
137	Functional Survey for Heterologous Sugar Transport Proteins, Using Saccharomyces cerevisiae as a Host. Applied and Environmental Microbiology, 2011, 77, 3311-3319.	3.1	130
138	Tuning Gene Expression in Yarrowia lipolytica by a Hybrid Promoter Approach. Applied and Environmental Microbiology, 2011, 77, 7905-7914.	3.1	274
139	From Pathways to Genomes and Beyond: The Metabolic Engineering Toolbox and Its Place in Biofuels Production. Green, 2011, 1, .	0.4	3
140	Re-engineering multicloning sites for function and convenience. Nucleic Acids Research, 2011, 39, e92-e92.	14.5	38
141	Uncovering latent xylose utilization potential in<i>Saccharomyces cerevisiae</i>. Biofuels, 2010, 1, 681-684.	2.4	2
142	Systems metabolic engineering: Genomeâ€scale models and beyond. Biotechnology Journal, 2010, 5, 647-659.	3.5	122
143	Optimizing pentose utilization in yeast: the need for novel tools and approaches. Biotechnology for Biofuels, 2010, 3, 24.	6.2	146
144	Engineering for biofuels: exploiting innate microbial capacity or importing biosynthetic potential?. Nature Reviews Microbiology, 2009, 7, 715-723.	28.6	352

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145	Linking high-resolution metabolic flux phenotypes and transcriptional regulation in yeast modulated by the global regulator Gcn4p. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6477-6482.	7.1	154
146	Uncovering the gene knockout landscape for improved lycopene production in E. coli. Applied Microbiology and Biotechnology, 2008, 78, 801-810.	3.6	54
147	A highâ€throughput screen for hyaluronic acid accumulation in recombinant <i>Escherichia coli</i> transformed by libraries of engineered sigma factors. Biotechnology and Bioengineering, 2008, 101, 788-796.	3.3	53
148	Global transcription machinery engineering: A new approach for improving cellular phenotype. Metabolic Engineering, 2007, 9, 258-267.	7.0	398
149	Expanding the metabolic engineering toolbox: more options to engineer cells. Trends in Biotechnology, 2007, 25, 132-137.	9.3	200
150	Identifying Functionally Important Mutations from Phenotypically Diverse Sequence Data. Applied and Environmental Microbiology, 2006, 72, 3696-3701.	3.1	23
151	Engineering Yeast Transcription Machinery for Improved Ethanol Tolerance and Production. Science, 2006, 314, 1565-1568.	12.6	730
152	Characterization of lycopene-overproducing E. coli strains in high cell density fermentations. Applied Microbiology and Biotechnology, 2006, 72, 968-974.	3.6	74
153	Engineering of Promoter Replacement Cassettes for Fine-Tuning of Gene Expression in Saccharomyces cerevisiae. Applied and Environmental Microbiology, 2006, 72, 5266-5273.	3.1	200
154	Identifying gene targets for the metabolic engineering of lycopene biosynthesis in Escherichia coli. Metabolic Engineering, 2005, 7, 155-164.	7.0	422
155	Construction of lycopene-overproducing E. coli strains by combining systematic and combinatorial gene knockout targets. Nature Biotechnology, 2005, 23, 612-616.	17.5	406
156	Tuning genetic control through promoter engineering. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12678-12683.	7.1	775
157	Improvement of Xylose Uptake and Ethanol Production in Recombinant Saccharomyces cerevisiae through an Inverse Metabolic Engineering Approach. Applied and Environmental Microbiology, 2005, 71, 8249-8256.	3.1	133
158	Exploiting biological complexity for strain improvement through systems biology. Nature Biotechnology, 2004, 22, 1261-1267.	17.5	166
159	Metabolic engineering challenges in the post-genomic era. Chemical Engineering Science, 2004, 59, 5009-5017.	3.8	13