Sang Yup Lee

List of Publications by Year
in descending order

817 papers	62,319 citations	735 120 h-index	1980 206 g-index
886 all docs	886 docs citations	886 times ranked	41229 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 food: microorganisms repurposed for our food. Microbial Biotechnology, 2022, 15, 18-25.	4.2	22
3	Applications of artificial intelligence to enzyme and pathway design for metabolic engineering. Current Opinion in Biotechnology, 2022, 73, 101-107.	6.6	49
4	Biocompatible Materials Enabled by Biobased Production of Pyomelanin Isoforms Using an Engineered Yarrowia lipolytica. Advanced Functional Materials, 2022, 32, 2109366.	14.9	5
5	Biosynthesis and applications of iron oxide nanocomposites synthesized by recombinant Escherichia coli. Applied Microbiology and Biotechnology, 2022, 106, 1127-1137.	3.6	5
6	Secretory production of spider silk proteins in metabolically engineered Corynebacterium glutamicum for spinning into tough fibers. Metabolic Engineering, 2022, 70, 102-114.	7.0	26
7	An operator-based expression toolkit for Bacillus subtilis enables fine-tuning of gene expression and biosynthetic pathway regulation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119980119.	7.1	29
8	Bacterial conversion of CO2 to organic compounds. Journal of CO2 Utilization, 2022, 58, 101929.	6.8	15
9	Optogenetic tools for microbial synthetic biology. Biotechnology Advances, 2022, , 107953.	11.7	9
10	Production of phenylpropanoids and flavonolignans from glycerol by metabolically engineered Escherichia coli. Biotechnology and Bioengineering, 2022, 119, 946-962.	3.3	7
11	Machine learning-aided engineering of hydrolases for PET depolymerization. Nature, 2022, 604, 662-667.	27.8	396
12	Production of natural colorants by metabolically engineered microorganisms. Trends in Chemistry, 2022, 4, 608-626.	8.5	8
13	Light-Driven Ammonia Production by Azotobacter vinelandii Cultured in Medium Containing Colloidal Quantum Dots. Journal of the American Chemical Society, 2022, 144, 10798-10808.	13.7	15
14	A deep learning approach to evaluate the feasibility of enzymatic reactions generated by retrobiosynthesis. Biotechnology Journal, 2021, 16, e2000605.	3.5	16
15	Microbial production of multiple short-chain primary amines via retrobiosynthesis. Nature Communications, 2021, 12, 173.	12.8	17
16	Adapting educational experiences for the chemists of tomorrow. Nature Reviews Chemistry, 2021, 5, 141-142.	30.2	8
17	Machine learning applications in genome-scale metabolic modeling. Current Opinion in Systems Biology, 2021, 25, 42-49.	2.6	27
18	Bio-synthesis of food additives and colorants-a growing trend in future food. Biotechnology Advances, 2021, 47, 107694.	11.7	47

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19	High-Level Production of the Natural Blue Pigment Indigoidine from Metabolically Engineered Corynebacterium glutamicum for Sustainable Fabric Dyes. ACS Sustainable Chemistry and Engineering, 2021, 9, 6613-6622.	6.7	29
20	Distribution of Îµ-Poly- <scp>l</scp> -Lysine Synthetases in Coryneform Bacteria Isolated from Cheese and Human Skin. Applied and Environmental Microbiology, 2021, 87, .	3.1	9
21	Production of Carminic Acid by Metabolically Engineered Escherichia coli. Journal of the American Chemical Society, 2021, 143, 5364-5377.	13.7	36
22	Synthetic Formatotrophs for Oneâ€Carbon Biorefinery. Advanced Science, 2021, 8, 2100199.	11.2	17
23	Production of Diversified Polyketides by Metabolic Engineering. Biochemistry, 2021, 60, 3424-3426.	2.5	2
24	Production of Rainbow Colorants by Metabolically Engineered Escherichia coli. Advanced Science, 2021, 8, e2100743.	11.2	28
25	Modular biocatalysis for polyamines. Nature Catalysis, 2021, 4, 449-450.	34.4	1
26	Three-dimensional label-free visualization and quantification of polyhydroxyalkanoates in individual bacterial cell in its native state. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	16
27	Drugs repurposed for COVID-19 by virtual screening of 6,218 drugs and cell-based assay. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	121
28	Escherichia coli as a platform microbial host for systems metabolic engineering. Essays in Biochemistry, 2021, 65, 225-246.	4.7	22
29	In SituBiosynthesis of a Metal Nanoparticle Encapsulated in Alginate Gel for Imageable Drug-Delivery System. ACS Applied Materials & Interfaces, 2021, 13, 36697-36708.	8.0	14
30	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
31	Physiological effects, biosynthesis, and derivatization of key human milk tetrasaccharides, lacto-N-tetraose, and lacto-N-neotetraose. Critical Reviews in Biotechnology, 2021, , 1-19.	9.0	19
32	Characterization and engineering of Streptomyces griseofuscus DSM 40191 as a potential host for heterologous expression of biosynthetic gene clusters. Scientific Reports, 2021, 11, 18301.	3.3	11
33	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
34	A versatile genetic engineering toolkit for E. coli based on CRISPR-prime editing. Nature Communications, 2021, 12, 5206.	12.8	49
35	Genome Engineering of Yarrowia lipolytica with the PiggyBac Transposon System. Methods in Molecular Biology, 2021, 2307, 1-24.	0.9	2
36	DeepTFactor: A deep learning-based tool for the prediction of transcription factors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	45

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37	Clostridium acetobutylicum atpG-Knockdown Mutants Increase Extracellular pH in Batch Cultures. Frontiers in Bioengineering and Biotechnology, 2021, 9, 754250.	4.1	2
38	Efficient anaerobic consumption of D-xylose by E. coli BL21(DE3) via xylR adaptive mutation. BMC Microbiology, 2021, 21, 332.	3.3	3
39	Protocols for Rec<scp>ET</scp>â€based markerless gene knockout and integration to express heterologous biosynthetic gene clusters in Pseudomonas putida. Microbial Biotechnology, 2020, 13, 199-209.	4.2	24
40	Metabolic engineering for the synthesis of polyesters: A 100-year journey from polyhydroxyalkanoates to non-natural microbial polyesters. Metabolic Engineering, 2020, 58, 47-81.	7.0	138
41	Metabolic engineering for the production of dicarboxylic acids and diamines. Metabolic Engineering, 2020, 58, 2-16.	7.0	104
42	Machine learning applications in systems metabolic engineering. Current Opinion in Biotechnology, 2020, 64, 1-9.	6.6	131
43	Producing Biochemicals in Yarrowia lipolytica from Xylose through a Strain Mating Approach. Biotechnology Journal, 2020, 15, e1900304.	3.5	28
44	Development of Metabolically Engineered Corynebacterium glutamicum for Enhanced Production of Cadaverine and Its Use for the Synthesis of Bio-Polyamide 510. ACS Sustainable Chemistry and Engineering, 2020, 8, 129-138.	6.7	23
45	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
46	Current status of pan-genome analysis for pathogenic bacteria. Current Opinion in Biotechnology, 2020, 63, 54-62.	6.6	54
47	Metabolic Engineering of Escherichia coli for Natural Product Biosynthesis. Trends in Biotechnology, 2020, 38, 745-765.	9.3	219
48	Microdroplet-Assisted Screening of Biomolecule Production for Metabolic Engineering Applications. Trends in Biotechnology, 2020, 38, 701-714.	9.3	45
49	Direct production of fatty alcohols from glucose using engineered strains of Yarrowia lipolytica. Metabolic Engineering Communications, 2020, 10, e00105.	3.6	37
50	Escherichia coli is engineered to grow on CO2 and formic acid. Nature Microbiology, 2020, 5, 1459-1463.	13.3	81
51	Heat-responsive and time-resolved transcriptome and metabolome analyses of Escherichia coli uncover thermo-tolerant mechanisms. Scientific Reports, 2020, 10, 17715.	3.3	22
52	Metabolic engineering of Escherichia coli for the production of benzoic acid from glucose. Metabolic Engineering, 2020, 62, 298-311.	7.0	21
53	Tunable Gene Expression System Independent of Downstream Coding Sequence. ACS Synthetic Biology, 2020, 9, 2998-3007.	3.8	9
54	Biosynthesis of inorganic nanomaterials using microbial cells and bacteriophages. Nature Reviews Chemistry, 2020, 4, 638-656.	30.2	96

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55	Automating Cloning by Natural Transformation. ACS Synthetic Biology, 2020, 9, 3228-3235.	3.8	11
56	Glutaric acid production by systems metabolic engineering of an <scp>l</scp> -lysineâ€“overproducing Corynebacterium glutamicum. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30328-30334.	7.1	56
57	Bacterial Polyesters: Microbial Polyhydroxyalkanoates and Nonnatural Polyesters (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock 10	21.6	2
58	Design, Evolution, and Characterization of a Xylose Biosensor in Escherichia coli Using the XylR/xylO System with an Expanded Operating Range. ACS Synthetic Biology, 2020, 9, 2714-2722.	3.8	10
59	Editorial overview: Chemical biotechnology. Current Opinion in Biotechnology, 2020, 65, vi-vii.	6.6	0
60	Tools and strategies of systems metabolic engineering for the development of microbial cell factories for chemical production. Chemical Society Reviews, 2020, 49, 4615-4636.	38.1	246
61	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
62	Synthesis, Characterization, and Application of Fully Biobased and Biodegradable Nylon-4,4 and -5,4. ACS Sustainable Chemistry and Engineering, 2020, 8, 5604-5614.	6.7	33
63	Microbial production of fatty acids and derivative chemicals. Current Opinion in Biotechnology, 2020, 65, 129-141.	6.6	34
64	Highâ€level production of 3â€hydroxypropionic acid from glycerol as a sole carbon source using metabolically engineered Escherichia coli. Biotechnology and Bioengineering, 2020, 117, 2139-2152.	3.3	35
65	A Novel Biosynthetic Pathway for the Production of Acrylic Acid through Î²-Alanine Route in Escherichia coli. ACS Synthetic Biology, 2020, 9, 1150-1159.	3.8	23
66	Systematic and Comparative Evaluation of Software Programs for Templateâ€Based Modeling of Protein Structures. Biotechnology Journal, 2020, 15, e1900343.	3.5	5
67	Formation and functionalization of membraneless compartments in Escherichia coli. Nature Chemical Biology, 2020, 16, 1143-1148.	8.0	95
68	CRISPRâ€“Cas9, CRISPRi and CRISPR-BEST-mediated genetic manipulation in streptomycetes. Nature Protocols, 2020, 15, 2470-2502.	12.0	50
69	Progress in the metabolic engineering of bio-based lactams and their Ï‰-amino acids precursors. Biotechnology Advances, 2020, 43, 107587.	11.7	17
70	Enhanced production of cellulose in Komagataeibacter xylinus by preventing insertion of IS element into cellulose synthesis gene. Biochemical Engineering Journal, 2020, 156, 107527.	3.6	22
71	Short-Term Adaptation Modulates Anaerobic Metabolic Flux to Succinate by Activating ExuT, a Novel D-Glucose Transporter in Escherichia coli. Frontiers in Microbiology, 2020, 11, 27.	3.5	5
72	MEMOTE for standardized genome-scale metabolic model testing. Nature Biotechnology, 2020, 38, 272-276.	17.5	314

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73	Programmable polyketide biosynthesis platform for production of aromatic compounds in yeast. Synthetic and Systems Biotechnology, 2020, 5, 11-18.	3.7	13
74	Improving Spinach2-and Broccoli-based biosensors for single and double analytes. Biotechnology Notes, 2020, 1, 2-8.	1.2	4
75	Non-conventional hosts for the production of fuels and chemicals. Current Opinion in Chemical Biology, 2020, 59, 15-22.	6.1	22
76	Microbial Polyhydroxyalkanoates and Nonnatural Polyesters. Advanced Materials, 2020, 32, e1907138.	21.0	65
77	Chang approximation for the osmotic pressure of dilute to concentrated solutions. Korean Journal of Chemical Engineering, 2020, 37, 583-587.	2.7	0
78	CRISPR-Cas9-mediated pinpoint microbial genome editing aided by target-mismatched sgRNAs. Genome Research, 2020, 30, 768-775.	5.5	20
79	Enhanced succinic acid production by Mannheimia employing optimal malate dehydrogenase. Nature Communications, 2020, 11, 1970.	12.8	79
80	Biosynthesis and characterization of poly(<scp>d</scp>â€lactateâ€coâ€glycolateâ€coâ€4â€hydroxybutyrate). Biotechnology and Bioengineering, 2020, 117, 2187-2197.	3.3	8
81	Metabolic engineering strategies toward production of biofuels. Current Opinion in Chemical Biology, 2020, 59, 1-14.	6.1	59
82	Modeling regulatory networks using machine learning for systems metabolic engineering. Current Opinion in Biotechnology, 2020, 65, 163-170.	6.6	18
83	Microbial production of 4â€aminoâ€1â€butanol, a fourâ€carbon amino alcohol. Biotechnology and Bioengineering, 2020, 117, 2771-2780.	3.3	7
84	Engineering Heterologous Hosts for the Enhanced Production of Non-ribosomal Peptides. Biotechnology and Bioprocess Engineering, 2020, 25, 795-809.	2.6	5
85	Compartmentalized microbes and co-cultures in hydrogels for on-demand bioproduction and preservation. Nature Communications, 2020, 11, 563.	12.8	134
86	Enhanced Production of Bacterial Cellulose in Komagataeibacter xylinus Via Tuning of Biosynthesis Genes with Synthetic RBS. Journal of Microbiology and Biotechnology, 2020, 30, 1430-1435.	2.1	17
87	Single-Base Genome Editing in Corynebacterium glutamicum with the Help of Negative Selection by Target-Mismatched CRISPR/Cpf1. Journal of Microbiology and Biotechnology, 2020, 30, 1583-1591.	2.1	13
88	Cell Surface Display of Poly(3-hydroxybutyrate) Depolymerase and its Application. Journal of Microbiology and Biotechnology, 2020, 30, 244-247.	2.1	0
89	Synthetic Biology for Natural Compounds. Biochemistry, 2019, 58, 1454-1456.	2.5	17
90	Are We There Yet? How and When Specific Biotechnologies Will Improve Human Health. Biotechnology Journal, 2019, 14, e1800195.	3.5	7

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91	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
92	Metabolic engineering of Corynebacterium glutamicum for the production of glutaric acid, a C5 dicarboxylic acid platform chemical. Metabolic Engineering, 2019, 51, 99-109.	7.0	50
93	Genomeâ€Scale Metabolic Reconstruction of Actinomycetes for Antibiotics Production. Biotechnology Journal, 2019, 14, e1800377.	3.5	22
94	Genomic and metabolic analysis of Komagataeibacter xylinus DSM 2325 producing bacterial cellulose nanofiber. Biotechnology and Bioengineering, 2019, 116, 3372-3381.	3.3	46
95	Highly efficient DSB-free base editing for streptomycetes with CRISPR-BEST. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20366-20375.	7.1	119
96	Yarrowia lipolytica: more than an oleaginous workhorse. Applied Microbiology and Biotechnology, 2019, 103, 9251-9262.	3.6	80
97	Metabolic Engineering of Escherichia coli for the Production of Hyaluronic Acid From Glucose and Galactose. Frontiers in Bioengineering and Biotechnology, 2019, 7, 351.	4.1	37
98	Microbial production of 2,3-butanediol for industrial applications. Journal of Industrial Microbiology and Biotechnology, 2019, 46, 1583-1601.	3.0	107
99	A safe and sustainable bacterial cellulose nanofiber separator for lithium rechargeable batteries. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19288-19293.	7.1	57
100	Engineering Clostridial Aldehyde/Alcohol Dehydrogenase for Selective Butanol Production. MBio, 2019, 10, .	4.1	18
101	Systems Metabolic Engineering Strategies: Integrating Systems and Synthetic Biology with Metabolic Engineering. Trends in Biotechnology, 2019, 37, 817-837.	9.3	345
102	Validating genome-wide CRISPR-Cas9 function improves screening in the oleaginous yeast Yarrowia lipolytica. Metabolic Engineering, 2019, 55, 102-110.	7.0	70
103	Engineering of an oleaginous bacterium for the production of fatty acids and fuels. Nature Chemical Biology, 2019, 15, 721-729.	8.0	76
104	Deep learning enables high-quality and high-throughput prediction of enzyme commission numbers. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13996-14001.	7.1	151
105	Broad-Spectrum Gene Repression Using Scaffold Engineering of Synthetic sRNAs. ACS Synthetic Biology, 2019, 8, 1452-1461.	3.8	20
106	Biocatalytic synthesis of polylactate and its copolymers by engineered microorganisms. Methods in Enzymology, 2019, 627, 125-162.	1.0	13
107	Shape-controlled assemblies of graphitic carbon nitride polymer for efficient sterilization therapies of water microbial contamination via 2D g-C3N4 under visible light illumination. Materials Science and Engineering C, 2019, 104, 109846.	7.3	20
108	Current status and applications of genome-scale metabolic models. Genome Biology, 2019, 20, 121.	8.8	463

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109	Microbial production of methyl anthranilate, a grape flavor compound. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10749-10756.	7.1	81
110	antiSMASH 5.0: updates to the secondary metabolite genome mining pipeline. Nucleic Acids Research, 2019, 47, W81-W87.	14.5	2,410
111	Expanded synthetic small regulatory RNA expression platforms for rapid and multiplex gene expression knockdown. Metabolic Engineering, 2019, 54, 180-190.	7.0	37
112	BMC Biomedical Engineering: a home for all biomedical engineering research. BMC Biomedical Engineering, 2019, 1, 1.	2.6	8
113	Synthetic biology and metabolic engineering of actinomycetes for natural product discovery. Biotechnology Advances, 2019, 37, 107366.	11.7	109
114	Metabolic engineering of microorganisms for production of aromatic compounds. Microbial Cell Factories, 2019, 18, 41.	4.0	150
115	Reconstruction of context-specific genome-scale metabolic models using multiomics data to study metabolic rewiring. Current Opinion in Systems Biology, 2019, 15, 1-11.	2.6	36
116	Advances in CRISPR-Cas systems for RNA targeting, tracking and editing. Biotechnology Advances, 2019, 37, 708-729.	11.7	95
117	The urgent need for microbiology literacy in society. Environmental Microbiology, 2019, 21, 1513-1528.	3.8	99
118	Systems Metabolic Engineering Strategies for Nonâ€Natural Microbial Polyester Production. Biotechnology Journal, 2019, 14, 1800426.	3.5	25
119	Rational Protein Engineering of Thermo-Stable PETase from Ideonella sakaiensis for Highly Efficient PET Degradation. ACS Catalysis, 2019, 9, 3519-3526.	11.2	307
120	Metabolic engineering of microbial cell factories for production of nutraceuticals. Microbial Cell Factories, 2019, 18, 46.	4.0	91
121	Systems Metabolic Engineering Meets Machine Learning: A New Era for Dataâ€Driven Metabolic Engineering. Biotechnology Journal, 2019, 14, e1800416.	3.5	45
122	Reply to â€œConformational fitting of a flexible oligomeric substrate does not explain the enzymatic PET degradationâ€• Nature Communications, 2019, 10, 5582.	12.8	9
123	Recent advancements in fungal-derived fuel and chemical production and commercialization. Current Opinion in Biotechnology, 2019, 57, 1-9.	6.6	39
124	CRISPR/Cas-based genome engineering in natural product discovery. Natural Product Reports, 2019, 36, 1262-1280.	10.3	88
125	The antiSMASH database version 2: a comprehensive resource on secondary metabolite biosynthetic gene clusters. Nucleic Acids Research, 2019, 47, D625-D630.	14.5	150
126	Separation and purification of three, four, and five carbon diamines from fermentation broth. Chemical Engineering Science, 2019, 196, 324-332.	3.8	14

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127	Microbial production of butyl butyrate, a flavor and fragrance compound. Applied Microbiology and Biotechnology, 2019, 103, 2079-2086.	3.6	16
128	A comprehensive metabolic map for production of bio-based chemicals. Nature Catalysis, 2019, 2, 18-33.	34.4	394
129	Expanding the Chemical Palette of Industrial Microbes: Metabolic Engineering for Type III PKSâ€Derived Polyketides. Biotechnology Journal, 2019, 14, e1700463.	3.5	34
130	Organic Acids: Succinic and Malic Acids. , 2019, , 172-187.		9
131	Filling the Gaps in the Kirromycin Biosynthesis: Deciphering the Role of Genes Involved in Ethylmalonyl-CoA Supply and Tailoring Reactions. Scientific Reports, 2018, 8, 3230.	3.3	17
132	Recent Trends in Nanomaterialsâ€Based Colorimetric Detection of Pathogenic Bacteria and Viruses. Small Methods, 2018, 2, 1700351.	8.6	114
133	Developing a piggyBac Transposon System and Compatible Selection Markers for Insertional Mutagenesis and Genome Engineering in Yarrowia lipolytica. Biotechnology Journal, 2018, 13, e1800022.	3.5	62
134	Deep learning improves prediction of drugâ€"drug and drugâ€"food interactions. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E4304-E4311.	7.1	325
135	Genome Variations of Evolved Escherichia coli ET8 With a Rhodopsinâ€Based Phototrophic Metabolism. Biotechnology Journal, 2018, 13, e1700497.	3.5	2
136	Rewiring Yarrowia lipolytica 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
137	Structural insight into molecular mechanism of poly(ethylene terephthalate) degradation. Nature Communications, 2018, 9, 382.	12.8	449
138	Membrane engineering via trans-unsaturated fatty acids production improves succinic acid production in Mannheimia succiniciproducens. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 555-566.	3.0	25
139	Expanding beyond canonical metabolism: Interfacing alternative elements, synthetic biology, and metabolic engineering. Synthetic and Systems Biotechnology, 2018, 3, 20-33.	3.7	12
140	Metabolic engineering of Escherichia coli for the production of indirubin from glucose. Journal of Biotechnology, 2018, 267, 19-28.	3.8	38
141	Engineering tunable biosensors for monitoring putrescine in Escherichia coli. Biotechnology and Bioengineering, 2018, 115, 1014-1027.	3.3	33
142	Characterisation of the antibacterial properties of the recombinant phage endolysins AP50-31 and LysB4 as potent bactericidal agents against Bacillus anthracis. Scientific Reports, 2018, 8, 18.	3.3	53
143	One-step fermentative production of aromatic polyesters from glucose by metabolically engineered Escherichia coli strains. Nature Communications, 2018, 9, 79.	12.8	84
144	Engineering and application of synthetic nar promoter for fine-tuning the expression of metabolic pathway genes in Escherichia coli. Biotechnology for Biofuels, 2018, 11, 103.	6.2	45

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145	Effects of nutritional enrichment on acid production from degenerated (non-solventogenic) Clostridium acetobutylicum strain M5. Applied Biological Chemistry, 2018, 61, 469-472.	1.9	10
146	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
147	The power of synthetic biology for bioproduction, remediation and pollution control. EMBO Reports, 2018, 19, .	4.5	83
148	Occurrence, evolution, and functions of DNA phosphorothioate epigenetics in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2988-E2996.	7.1	72
149	Surrogate strains of human pathogens for field release. Bioengineered, 2018, 9, 17-24.	3.2	1
150	Toward Systems Metabolic Engineering of Streptomycetes for Secondary Metabolites Production. Biotechnology Journal, 2018, 13, 1700465.	3.5	32
151	CRISPR-Cas9 Toolkit for Actinomycete Genome Editing. Methods in Molecular Biology, 2018, 1671, 163-184.	0.9	24
152	Synthetic biology for microbial heavy metal biosensors. Analytical and Bioanalytical Chemistry, 2018, 410, 1191-1203.	3.7	82
153	Metabolic Engineering of Microorganisms for the Production of Natural Compounds. Advanced Biology, 2018, 2, 1700190.	3.0	83
154	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
155	Assimilation of formic acid and CO ₂ by engineered Escherichia coli equipped with reconstructed one-carbon assimilation pathways. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9271-E9279.	7.1	97
156	Revisiting Statistical Design and Analysis in Scientific Research. Small, 2018, 14, e1802604.	10.0	4
157	Production of Î±-linolenic acid in Yarrowia lipolytica using low-temperature fermentation. Applied Microbiology and Biotechnology, 2018, 102, 8809-8816.	3.6	52
158	In Vivo Synthesis of Nanocomposites Using the Recombinant Escherichia coli. Small, 2018, 14, e1803133.	10.0	22
159	Repurposing type III polyketide synthase as a malonyl-CoA biosensor for metabolic engineering in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9835-9844.	7.1	107
160	Recombinant Escherichia coli as a biofactory for various single- and multi-element nanomaterials. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5944-5949.	7.1	103
161	Production of ethylene glycol from xylose by metabolically engineered Escherichia coli. AICHE Journal, 2018, 64, 4193-4200.	3.6	38
162	Evolution of the Metabolic Engineering Community. Metabolic Engineering, 2018, 48, A1-A2.	7.0	2

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163	Metabolic engineering in the host Yarrowia lipolytica. Metabolic Engineering, 2018, 50, 192-208.	7.0	157
164	Metabolic engineering of Clostridium acetobutylicum for the production of butyl butyrate. Applied Microbiology and Biotechnology, 2018, 102, 8319-8327.	3.6	31
165	Protective Effects of Protocatechuic Acid on Seizure-Induced Neuronal Death. International Journal of Molecular Sciences, 2018, 19, 187.	4.1	21
166	Metabolic engineering of Escherichia coli for the enhanced production of <scp>l</scp>â€tyrosine. Biotechnology and Bioengineering, 2018, 115, 2554-2564.	3.3	59
167	Markerless gene knockout and integration to express heterologous biosynthetic gene clusters in Pseudomonas putida. Metabolic Engineering, 2018, 47, 463-474.	7.0	53
168	Engineering Yarrowia lipolytica for the production of cyclopropanated fatty acids. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 881-888.	3.0	19
169	Metabolic Engineering of Escherichia coli for Efficient Production of 2-Pyrone-4,6-dicarboxylic Acid from Glucose. ACS Synthetic Biology, 2018, 7, 2296-2307.	3.8	31
170	Structural Insights into Polyhydroxyalkanoates Biosynthesis. Trends in Biochemical Sciences, 2018, 43, 790-805.	7.5	84
171	Engineering a Glucosamine-6-phosphate Responsive glmS Ribozyme Switch Enables Dynamic Control of Metabolic Flux in Bacillus subtilis for Overproduction of N-Acetylglucosamine. ACS Synthetic Biology, 2018, 7, 2423-2435.	3.8	49
172	Metabolic engineering of Escherichia coli for secretory production of free haem. Nature Catalysis, 2018, 1, 720-728.	34.4	75
173	Metabolic engineering of Escherichia coli for high-level astaxanthin production with high productivity. Metabolic Engineering, 2018, 49, 105-115.	7.0	124
174	Synthetic Biology Expands the Industrial Potential of Yarrowia lipolytica. Trends in Biotechnology, 2018, 36, 1085-1095.	9.3	107
175	Metabolomics for industrial fermentation. Bioprocess and Biosystems Engineering, 2018, 41, 1073-1077.	3.4	7
176	C1 Gas Refinery. , 2018, , 1-16.		1
177	Bioproduction of Chemicals: An Introduction. , 2018, , 1-16.		0
178	Bioplastics Biotechnology. , 2018, , 1-17.		0
179	Polyketide Bioderivatization Using the Promiscuous Acyltransferase KirCII. ACS Synthetic Biology, 2017, 6, 421-427.	3.8	42
180	Construction of Bacillus thuringiensis Simulant Strains Suitable for Environmental Release. Applied and Environmental Microbiology, 2017, 83, .	3.1	6

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