Sang Woo Seo

List of Publications by Year
in descending order

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50 papers	2,415 citations	172457 29 h-index	214800 47 g-index
54 all docs	54 docs citations	54 times ranked	2819 citing authors

#	Article	IF	Citations
1	Deciphering Fur transcriptional regulatory network highlights its complex role beyond iron metabolism in Escherichia coli. Nature Communications, 2014, 5, 4910.	12.8	241
2	Predictive design of mRNA translation initiation region to control prokaryotic translation efficiency. Metabolic Engineering, 2013, 15, 67-74.	7.0	240
3	Genome-wide Reconstruction of OxyR and SoxRS Transcriptional Regulatory Networks under Oxidative Stress in Escherichia coli K-12 MG1655. Cell Reports, 2015, 12, 1289-1299.	6.4	174
4	Synthetic RNA devices to expedite the evolution of metabolite-producing microbes. Nature Communications, 2013, 4, 1413.	12.8	140
5	Butyrate production in engineered Escherichia coli with synthetic scaffolds. Biotechnology and Bioengineering, 2013, 110, 2790-2794.	3.3	88
6	Decoding genome-wide GadEWX-transcriptional regulatory networks reveals multifaceted cellular responses to acid stress in Escherichia coli. Nature Communications, 2015, 6, 7970.	12.8	87
7	Cellular responses to reactive oxygen species are predicted from molecular mechanisms. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14368-14373.	7.1	79
8	Design and optimization of genetically encoded biosensors for high-throughput screening of chemicals. Current Opinion in Biotechnology, 2018, 54, 18-25.	6.6	72
9	Rational Engineering of Enzyme Allosteric Regulation through Sequence Evolution Analysis. PLoS Computational Biology, 2012, 8, e1002612.	3.2	71
10	Systematic discovery of uncharacterized transcription factors in Escherichia coli K-12 MG1655. Nucleic Acids Research, 2018, 46, 10682-10696.	14.5	65
11	Systems assessment of transcriptional regulation on central carbon metabolism by Cra and CRP. Nucleic Acids Research, 2018, 46, 2901-2917.	14.5	62
12	Model-driven rebalancing of the intracellular redox state for optimization of a heterologous n-butanol pathway in Escherichia coli. Metabolic Engineering, 2013, 20, 56-62.	7.0	60
13	Predictive combinatorial design of mRNA translation initiation regions for systematic optimization of gene expression levels. Scientific Reports, 2014, 4, 4515.	3.3	59
14	Precise flux redistribution to glyoxylate cycle for 5-aminolevulinic acid production in Escherichia coli. Metabolic Engineering, 2017, 43, 1-8.	7.0	57
15	Synthetic biology: Tools to design microbes for the production of chemicals and fuels. Biotechnology Advances, 2013, 31, 811-817.	11.7	56
16	dCas9-mediated Nanoelectrokinetic Direct Detection of Target Gene for Liquid Biopsy. Nano Letters, 2018, 18, 7642-7650.	9.1	50
17	Synthetic auxotrophs for stable and tunable maintenance of plasmid copy number. Metabolic Engineering, 2018, 48, 121-128.	7.0	48
18	Quantitative correlation between mRNA secondary structure around the region downstream of the initiation codon and translational efficiency in Escherichia coli. Biotechnology and Bioengineering, 2009, 104, 611-616.	3.3	45

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19	Vibrio sp. dhg as a platform for the biorefinery of brown macroalgae. Nature Communications, 2019, 10, 2486.	12.8	44
20	Pathway optimization by re-design of untranslated regions for L-tyrosine production in Escherichia coli. Scientific Reports, 2015, 5, 13853.	3.3	43
21	Diffusiophoretic exclusion of colloidal particles for continuous water purification. Lab on A Chip, 2018, 18, 1713-1724.	6.0	42
22	RNA-based dynamic genetic controllers: development strategies and applications. Current Opinion in Biotechnology, 2018, 53, 1-11.	6.6	37
23	Refactoring redox cofactor regeneration for high-yield biocatalysis of glucose to butyric acid in Escherichia coli. Bioresource Technology, 2013, 135, 568-573.	9.6	36
24	Synthetic biology for evolutionary engineering: from perturbation of genotype to acquisition of desired phenotype. Biotechnology for Biofuels, 2019, 12, 113.	6.2	36
25	Independent component analysis of E. coli's transcriptome reveals the cellular processes that respond to heterologous gene expression. Metabolic Engineering, 2020, 61, 360-368.	7.0	36
26	Revealing genome-scale transcriptional regulatory landscape of OmpR highlights its expanded regulatory roles under osmotic stress in Escherichia coli K-12 MG1655. Scientific Reports, 2017, 7, 2181.	3.3	35
27	Synthetic redesign of Escherichia coli for cadaverine production from galactose. Biotechnology for Biofuels, 2017, 10, 20.	6.2	34
28	Easy access to efficient magnetically recyclable separation of histidine-tagged proteins using superparamagnetic nickel ferrite nanoparticle clusters. Journal of Materials Chemistry, 2011, 21, 6713.	6.7	32
29	Engineered Escherichia coli for simultaneous utilization of galactose and glucose. Bioresource Technology, 2013, 135, 564-567.	9.6	32
30	Design of 5â€²-untranslated region variants for tunable expression in Escherichia coli. Biochemical and Biophysical Research Communications, 2007, 356, 136-141.	2.1	31
31	Synthetic regulatory tools for microbial engineering. Biotechnology and Bioprocess Engineering, 2012, 17, 1-7.	2.6	30
32	Fabrication of Troponin I Biosensor Composed of Multi-Functional DNA Structure/Au Nanocrystal Using Electrochemical and Localized Surface Plasmon Resonance Dual-Detection Method. Nanomaterials, 2019, 9, 1000.	4.1	30
33	Engineering glyceraldehydeâ€3â€phosphate dehydrogenase for switching control of glycolysis in Escherichia coli. Biotechnology and Bioengineering, 2012, 109, 2612-2619.	3.3	29
34	A novel pathogen detection system based on highâ€resolution CEâ€SSCP using a triblock copolymer matrix. Journal of Separation Science, 2010, 33, 1639-1643.	2.5	26
35	Engineering Tools for the Development of Recombinant Lactic Acid Bacteria. Biotechnology Journal, 2020, 15, e1900344.	3.5	22
36	Transcriptional Profiling of the Probiotic Escherichia coli Nissle 1917 Strain under Simulated Microgravity. International Journal of Molecular Sciences, 2020, 21, 2666.	4.1	22

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37	Synthetic biosensor accelerates evolution by rewiring carbon metabolism toward a specific metabolite. Cell Reports, 2021, 36, 109589.	6.4	18
38	Riboselector. Methods in Enzymology, 2015, 550, 341-362.	1.0	17
39	Nanoelectrokinetic Selective Preconcentration Based on Ion Concentration Polarization. Biochip Journal, 2020, 14, 100-109.	4.9	17
40	Synthetic cellular communication-based screening for strains with improved 3-hydroxypropionic acid secretion. Lab on A Chip, 2021, 21, 4455-4463.	6.0	12
41	Synthetic protein quality control to enhance full-length translation in bacteria. Nature Chemical Biology, 2021, 17, 421-427.	8.0	10
42	Engineering Vibrio sp. SP1 for the production of carotenoids directly from brown macroalgae. Computational and Structural Biotechnology Journal, 2021, 19, 1531-1540.	4.1	8
43	Efficient Production of Naringin Acetate with Different Acyl Donors via Enzymatic Transesterification by Lipases. International Journal of Environmental Research and Public Health, 2022, 19, 2972.	2.6	6
44	A Vibrio-based microbial platform for accelerated lignocellulosic sugar conversion. , 2022, 15, .		6
45	Synthetic regulatory RNAs as tools for engineering biological systems: Design and applications. Chemical Engineering Science, 2013, 103, 36-41.	3.8	5
46	The synthesis of single-walled carbon nanotubes with narrow diameter distribution using polymerized hemoglobin. Carbon, 2014, 69, 588-594.	10.3	5
47	Elucidation of bacterial translation regulatory networks. Current Opinion in Systems Biology, 2017, 2, 84-90.	2.6	5
48	Complete Genome Sequence of Lactic Acid Bacterium Pediococcus acidilactici Strain ATCC 8042, an Autolytic Anti-bacterial Peptidoglycan Hydrolase Producer. Biotechnology and Bioprocess Engineering, 2019, 24, 483-487.	2.6	5
49	Switching control of an essential gene for reprogramming of cellular phenotypes in Escherichia coli. Biotechnology and Bioengineering, 2012, 109, 1875-1880.	3.3	4
50	Synthetic Regulatory Tools to Engineer Microbial Cell Factories for Chemical Production. , 2019, , 115-141.		0