Tae Seok Moon

List of Publications by Year
in descending order

55 papers	4,152 citations	186265 28 h-index	149698 56 g-index
56 all docs	56 docs citations	56 times ranked	4504 citing authors

#	Article	IF	Citations
1	Engineering ligand-specific biosensors for aromatic amino acids and neurochemicals. Cell Systems, 2022, 13, 204-214.e4.	6.2	20
2	Genetically stable CRISPR-based kill switches for engineered microbes. Nature Communications, 2022, 13, 672.	12.8	70
3	Making Security Viral: Shifting Engineering Biology Culture and Publishing. ACS Synthetic Biology, 2022, 11, 522-527.	3.8	6
4	Making space for young speakers. Nature Chemical Biology, 2022, 18, 353-353.	8.0	2
5	Model-Based Design of Synthetic Antisense RNA for Predictable Gene Repression. Methods in Molecular Biology, 2022, , 111-124.	0.9	1
6	An Improved CRISPR Interference Tool to Engineer <i>Rhodococcus opacus</i>. ACS Synthetic Biology, 2021, 10, 786-798.	3.8	13
7	Duplex Structure of Double-Stranded RNA Provides Stability against Hydrolysis Relative to Single-Stranded RNA. Environmental Science & Technology, 2021, 55, 8045-8053.	10.0	20
8	Bioconversion of renewable feedstocks by Rhodococcus opacus. Current Opinion in Biotechnology, 2020, 64, 10-16.	6.6	29
9	Biosensing in Smart Engineered Probiotics. Biotechnology Journal, 2020, 15, e1900319.	3.5	33
10	Tailoring microbes to upgrade lignin. Current Opinion in Chemical Biology, 2020, 59, 23-29.	6.1	20
11	Engineering microbial diagnostics and therapeutics with smart control. Current Opinion in Biotechnology, 2020, 66, 11-17.	6.6	21
12	Analysis of RNA Interference (RNAi) Biopesticides: Double-Stranded RNA (dsRNA) Extraction from Agricultural Soils and Quantification by RT-qPCR. Environmental Science & Technology, 2020, 54, 4893-4902.	10.0	17
13	Structural Determination of a New Peptidolipid Family from <i>Rhodococcus opacus</i> and the Pathogen <i>Rhodococcus equi</i> by Multiple Stage Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2020, 31, 611-623.	2.8	3
14	Development of Rhodococcus opacus as a chassis for lignin valorization and bioproduction of high-value compounds. Biotechnology for Biofuels, 2019, 12, 192.	6.2	35
15	Construction of Genetic Logic Gates Based on the T7 RNA Polymerase Expression System in <i>Rhodococcus opacus</i> PD630. ACS Synthetic Biology, 2019, 8, 1921-1930.	3.8	19
16	A concerted systems biology analysis of phenol metabolism in Rhodococcus opacus PD630. Metabolic Engineering, 2019, 55, 120-130.	7.0	37
17	Modulating Responses of Toehold Switches by an Inhibitory Hairpin. ACS Synthetic Biology, 2019, 8, 601-605.	3.8	13
18	Establishing a Multivariate Model for Predictable Antisense RNA-Mediated Repression. ACS Synthetic Biology, 2019, 8, 45-56.	3.8	9

#	ARTICLE	IF	CITATIONS
19	Molecular Toolkit for Gene Expression Control and Genome Modification in <i>Rhodococcus opacus</i> PD630. ACS Synthetic Biology, 2018, 7, 727-738.	3.8	69
20	Multilevel Regulation of Bacterial Gene Expression with the Combined STAR and Antisense RNA System. ACS Synthetic Biology, 2018, 7, 853-865.	3.8	30
21	Design rules of synthetic non-coding RNAs in bacteria. Methods, 2018, 143, 58-69.	3.8	41
22	Selection of stable reference genes for RT-qPCR in Rhodococcus opacus PD630. Scientific Reports, 2018, 8, 6019.	3.3	23
23	Lipid metabolism of phenol-tolerant Rhodococcus opacus strains for lignin bioconversion. Biotechnology for Biofuels, 2018, 11, 339.	6.2	23
24	Multi-omic elucidation of aromatic catabolism in adaptively evolved Rhodococcus opacus. Metabolic Engineering, 2018, 49, 69-83.	7.0	50
25	Synthetic Gene Regulation in Cyanobacteria. Advances in Experimental Medicine and Biology, 2018, 1080, 317-355.	1.6	11
26	Physical, chemical, and metabolic state sensors expand the synthetic biology toolbox for <i>Synechocystis</i> sp. PCC 6803. Biotechnology and Bioengineering, 2017, 114, 1561-1569.	3.3	37
27	Enabling complex genetic circuits to respond to extrinsic environmental signals. Biotechnology and Bioengineering, 2017, 114, 1626-1631.	3.3	21
28	Decoupling Resource-Coupled Gene Expression in Living Cells. ACS Synthetic Biology, 2017, 6, 1596-1604.	3.8	68
29	Dynamics of sequestration-based gene regulatory cascades. Nucleic Acids Research, 2017, 45, 7515-7526.	14.5	7
30	Cyanobacterial carbon metabolism: Fluxome plasticity and oxygen dependence. Biotechnology and Bioengineering, 2017, 114, 1593-1602.	3.3	83
31	Development of Chemical and Metabolite Sensors for <i>Rhodococcus opacus</i> PD630. ACS Synthetic Biology, 2017, 6, 1973-1978.	3.8	36
32	Oxygenâ€responsive genetic circuits constructed in <i>Synechocystis</i> sp. PCC 6803. Biotechnology and Bioengineering, 2016, 113, 433-442.	3.3	47
33	Rapid metabolic analysis of <i>Rhodococcus opacus</i> PD630 via parallel ¹³Câ€metabolite fingerprinting. Biotechnology and Bioengineering, 2016, 113, 91-100.	3.3	51
34	Diurnal Regulation of Cellular Processes in the Cyanobacterium <i>Synechocystis</i> sp. Strain PCC 6803: Insights from Transcriptomic, Fluxomic, and Physiological Analyses. MBio, 2016, 7, .	4.1	84
35	Development of Design Rules for Reliable Antisense RNA Behavior in <i>E. coli</i>. ACS Synthetic Biology, 2016, 5, 1441-1454.	3.8	51
36	Programmable control of bacterial gene expression with the combined CRISPR and antisense RNA system. Nucleic Acids Research, 2016, 44, 2462-2473.	14.5	101

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37	Comparative transcriptomics elucidates adaptive phenol tolerance and utilization in lipid-accumulating<i>Rhodococcus opacus</i>PD630. Nucleic Acids Research, 2016, 44, 2240-2254.	14.5	105
38	De novodesign of heat-repressible RNA thermosensors inE. coli. Nucleic Acids Research, 2015, 43, 6166-6179.	14.5	45
39	Programmable genetic circuits for pathway engineering. Current Opinion in Biotechnology, 2015, 36, 115-121.	6.6	28
40	Robust, tunable genetic memory from protein sequestration combined with positive feedback. Nucleic Acids Research, 2015, 43, 9086-9094.	14.5	36
41	â€˜Hybridâ€™ processing strategies for expanding and improving the synthesis of renewable bioproducts. Current Opinion in Biotechnology, 2014, 30, 17-23.	6.6	9
42	Tuning Primary Metabolism for Heterologous Pathway Productivity. ACS Synthetic Biology, 2013, 2, 126-135.	3.8	27
43	From promise to practice. EMBO Reports, 2013, 14, 1034-1038.	4.5	11
44	Microbial Production of Isoprenoids Enabled by Synthetic Biology. Frontiers in Microbiology, 2013, 4, 75.	3.5	46
45	Synthetic biology of cyanobacteria: unique challenges and opportunities. Frontiers in Microbiology, 2013, 4, 246.	3.5	243
46	Genetic programs constructed from layered logic gates in single cells. Nature, 2012, 491, 249-253.	27.8	660
47	Sensitivity analysis of a proposed model mechanism for newly created glucoseâ€6â€oxidases. AICHE Journal, 2012, 58, 2303-2308.	3.6	7
48	Construction of a Genetic Multiplexer to Toggle between Chemosensory Pathways in Escherichia coli. Journal of Molecular Biology, 2011, 406, 215-227.	4.2	59
49	Use of modular, synthetic scaffolds for improved production of glucaric acid in engineered E. coli. Metabolic Engineering, 2010, 12, 298-305.	7.0	258
50	Engineering Enzyme Specificity Using Computational Design of a Defined-Sequence Library. Chemistry and Biology, 2010, 17, 1306-1315.	6.0	48
51	Cloning and Characterization of Uronate Dehydrogenases from Two Pseudomonads and<i>Agrobacterium tumefaciens</i>Strain C58. Journal of Bacteriology, 2009, 191, 1565-1573.	2.2	48
52	Synthetic protein scaffolds provide modular control over metabolic flux. Nature Biotechnology, 2009, 27, 753-759.	17.5	1,071
53	Enzymatic assay of d-glucuronate using uronate dehydrogenase. Analytical Biochemistry, 2009, 392, 183-185.	2.4	14
54	Production of Glucaric Acid from a Synthetic Pathway in Recombinant <i>Escherichia coli</i>. Applied and Environmental Microbiology, 2009, 75, 589-595.	3.1	212

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55	Morphologyâ€“rheology relationship in hyaluronate/poly(vinyl alcohol)/borax polymer blends. Polymer, 2005, 46, 7156-7163.	3.8	18