Yohei Yokobayashi

List of Publications by Year
in descending order

63 papers	2,983 citations	218677 26 h-index	168389 53 g-index
66 all docs	66 docs citations	66 times ranked	2547 citing authors

#	Article	IF	Citations
1	Directed evolution of a genetic circuit. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16587-16591.	7.1	406
2	A chiroselective peptide replicator. Nature, 2001, 409, 797-801.	27.8	292
3	Emergence of symbiosis in peptide self-replication through a hypercyclic network. Nature, 1997, 390, 591-594.	27.8	246
4	Development of an Aptamer Beacon for Detection of Interferon-Gamma. Analytical Chemistry, 2010, 82, 1851-1857.	6.5	141
5	Artificial control of gene expression in mammalian cells by modulating RNA interference through aptamer-small molecule interaction. Rna, 2006, 12, 710-716.	3.5	127
6	Reengineering a Natural Riboswitch by Dual Genetic Selection. Journal of the American Chemical Society, 2007, 129, 13814-13815.	13.7	107
7	Engineering Complex Riboswitch Regulation by Dual Genetic Selection. Journal of the American Chemical Society, 2008, 130, 16310-16315.	13.7	100
8	An efficient platform for genetic selection and screening of gene switches in Escherichia coli. Nucleic Acids Research, 2009, 37, e39-e39.	14.5	100
9	Conditional RNA Interference Mediated by Allosteric Ribozyme. Journal of the American Chemical Society, 2009, 131, 13906-13907.	13.7	88
10	Controlling Mammalian Gene Expression by Allosteric Hepatitis Delta Virus Ribozymes. ACS Synthetic Biology, 2013, 2, 684-689.	3.8	83
11	Engineering Artificial Small RNAs for Conditional Gene Silencing in <i>Escherichia coli</i>. ACS Synthetic Biology, 2012, 1, 6-13.	3.8	82
12	Photonic boolean logic gates based on DNA aptamers. Chemical Communications, 2007, , 195-197.	4.1	76
13	Programmable Artificial Cells Using Histamine-Responsive Synthetic Riboswitch. Journal of the American Chemical Society, 2019, 141, 11103-11114.	13.7	70
14	Aptamer-based and aptazyme-based riboswitches in mammalian cells. Current Opinion in Chemical Biology, 2019, 52, 72-78.	6.1	65
15	Graphene based field-effect transistor biosensors functionalized using gas-phase synthesized gold nanoparticles. Sensors and Actuators B: Chemical, 2020, 320, 128432.	7.8	59
16	Highâ€Throughput Mutational Analysis of a Twister Ribozyme. Angewandte Chemie - International Edition, 2016, 55, 10354-10357.	13.8	51
17	Synthetic mammalian riboswitches based on guanine aptazyme. Chemical Communications, 2012, 48, 7215.	4.1	46
18	Dual selection of a genetic switch by a single selection marker. BioSystems, 2007, 90, 115-120.	2.0	42

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19	High-throughput assay and engineering of self-cleaving ribozymes by sequencing. Nucleic Acids Research, 2015, 43, e85-e85.	14.5	41
20	Modulating endogenous gene expression of mammalian cells via RNAâ€“small molecule interaction. Biochemical and Biophysical Research Communications, 2008, 376, 169-173.	2.1	39
21	Mechanismâ€Guided Library Design and Dual Genetic Selection of Synthetic OFF Riboswitches. ChemBioChem, 2009, 10, 2375-2381.	2.6	39
22	Directed evolution of trypsin inhibiting peptides using a genetic algorithm. Journal of the Chemical Society Perkin Transactions 1, 1996, , 2435.	0.9	38
23	Enhancing the Selectivity of Molecularly Imprinted Polymers. Chemistry Letters, 1997, 26, 1297-1298.	1.3	35
24	A synthetic riboswitch with chemical band-pass response. Chemical Communications, 2010, 46, 6825.	4.1	32
25	Deep Sequencing Analysis of Aptazyme Variants Based on a Pistol Ribozyme. ACS Synthetic Biology, 2017, 6, 1283-1288.	3.8	32
26	Firefly Luciferase Mutant with Enhanced Activity and Thermostability. ACS Omega, 2018, 3, 2628-2633.	3.5	29
27	EVOLUTIONARY DESIGN OF GENETIC CIRCUITS AND CELL-CELL COMMUNICATIONS. International Journal of Modeling, Simulation, and Scientific Computing, 2003, 06, 37-45.	1.4	26
28	Efficient Design Strategy for Whole-Cell and Cell-Free Biosensors based on Engineered Riboswitches. Analytical Letters, 2009, 42, 108-122.	1.8	26
29	Programmable Macroscopic Self-Assembly of DNA-Decorated Hydrogels. Journal of the American Chemical Society, 2022, 144, 2149-2155.	13.7	26
30	RNA Signal Amplifier Circuit with Integrated Fluorescence Output. ACS Synthetic Biology, 2015, 4, 655-658.	3.8	24
31	A Dual Selection Module for Directed Evolution of Genetic Circuits. Natural Computing, 2005, 4, 245-254.	3.0	23
32	Reversible Gene Regulation in Mammalian Cells Using Riboswitch-Engineered Vesicular Stomatitis Virus Vector. ACS Synthetic Biology, 2019, 8, 1976-1982.	3.8	23
33	Design of Mammalian ON-Riboswitches Based on Tandemly Fused Aptamer and Ribozyme. ACS Synthetic Biology, 2020, 9, 19-25.	3.8	23
34	Engineering proteins that bind, move, make and break DNA. Current Opinion in Biotechnology, 2003, 14, 371-378.	6.6	22
35	Development of a histamine aptasensor for food safety monitoring. Scientific Reports, 2019, 9, 16659.	3.3	21
36	Large Scale Mutational and Kinetic Analysis of a Self-Hydrolyzing Deoxyribozyme. ACS Chemical Biology, 2017, 12, 2940-2945.	3.4	20

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37	Knockdown of recA gene expression by artificial small RNAs in Escherichia coli. Biochemical and Biophysical Research Communications, 2013, 430, 256-259.	2.1	19
38	Posttranscriptional Signal Integration of Engineered Riboswitches Yields Bandâ€Pass Output. Angewandte Chemie - International Edition, 2010, 49, 4653-4655.	13.8	18
39	Controlling <i>Bdellovibrio bacteriovorus</i> Gene Expression and Predation Using Synthetic Riboswitches. ACS Synthetic Biology, 2017, 6, 2035-2041.	3.8	18
40	High-Throughput Analysis and Engineering of Ribozymes and Deoxyribozymes by Sequencing. Accounts of Chemical Research, 2020, 53, 2903-2912.	15.6	18
41	Riboswitch Signal Amplification by Controlling Plasmid Copy Number. ACS Synthetic Biology, 2019, 8, 245-250.	3.8	17
42	Combinatorially Inducible RNA Interference Triggered by Chemically Modified Oligonucleotides. Journal of the American Chemical Society, 2011, 133, 2783-2788.	13.7	16
43	Analyzing and Tuning Ribozyme Activity by Deep Sequencing To Modulate Gene Expression Level in Mammalian Cells. ACS Synthetic Biology, 2018, 7, 371-376.	3.8	16
44	Cell-free riboswitches. RSC Chemical Biology, 2021, 2, 1430-1440.	4.1	16
45	Optochemical control of gene expression by photocaged guanine and riboswitches. Chemical Communications, 2018, 54, 6181-6183.	4.1	15
46	Applications of high-throughput sequencing to analyze and engineer ribozymes. Methods, 2019, 161, 41-45.	3.8	14
47	Direct screening for ribozyme activity in mammalian cells. Chemical Communications, 2017, 53, 12540-12543.	4.1	13
48	Systematic minimization of RNA ligase ribozyme through large-scale design-synthesis-sequence cycles. Nucleic Acids Research, 2019, 47, 8950-8960.	14.5	13
49	High-throughput screening of cell-free riboswitches by fluorescence-activated droplet sorting. Nucleic Acids Research, 2022, 50, 3535-3550.	14.5	10
50	Engineering proteins that bind, move, make and break DNA. Current Opinion in Biotechnology, 2003, 14, 665.	6.6	9
51	Exploration of structural features of monomeric helical peptides designed with a genetic algorithm. Proteins: Structure, Function and Bioinformatics, 2003, 53, 193-200.	2.6	9
52	Circularly-Permuted Pistol Ribozyme: A Synthetic Ribozyme Scaffold for Mammalian Riboswitches. ACS Synthetic Biology, 2021, 10, 2040-2048.	3.8	9
53	Selection of silk-binding peptides by phage display. Biotechnology Letters, 2011, 33, 1069-1073.	2.2	7
54	Directed evolution of orthogonal RNAâ€"RBP pairs through library-vs-library <i>in vitro</i> selection. Nucleic Acids Research, 2022, 50, 601-616.	14.5	6

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55	Highâ€Throughput Mutational Analysis of a Twister Ribozyme. Angewandte Chemie, 2016, 128, 10510-10513.	2.0	4
56	Self-powered RNA nanomachine driven by metastable structure. Nucleic Acids Research, 2019, 47, 6007-6014.	14.5	4
57	Aptazyme-Based Riboswitches and Logic Gates in Mammalian Cells. Methods in Molecular Biology, 2015, 1316, 141-148.	0.9	4
58	Dual Genetic Selection of Synthetic Riboswitches in Escherichia coli. Methods in Molecular Biology, 2014, 1111, 131-140.	0.9	4
59	In Vivo Screening of Artificial Small RNAs for Silencing Endogenous Genes in Escherichia coli. Methods in Molecular Biology, 2013, 1073, 75-84.	0.9	3
60	Novel RNA Viral Vectors for Chemically Regulated Gene Expression in Embryonic Stem Cells. ACS Synthetic Biology, 2021, 10, 2959-2967.	3.8	2
61	Enzymatic Probing Analysis of an Engineered Riboswitch Reveals Multiple off Conformations. Nucleosides, Nucleotides and Nucleic Acids, 2011, 30, 696-705.	1.1	1
62	Editorial overview: Mammalian synthetic biology: from devices to multicellular systems. Current Opinion in Chemical Biology, 2019, 52, A1-A2.	6.1	1
63	Aptazyme-Based Riboswitches and Logic Gates in Mammalian Cells. Methods in Molecular Biology, 2021, 2323, 213-220.	0.9	1