Shigeyoshi Matsumura

List of Publications by Year
in descending order

34 papers	496 citations	933447 10 h-index	677142 22 g-index
34 all docs	34 docs citations	34 times ranked	402 citing authors

#	Article	IF	Citations
1	Transient compartmentalization of RNA replicators prevents extinction due to parasites. Science, 2016, 354, 1293-1296.	12.6	116
2	De novo synthesis and development of an RNA enzyme. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13750-13755.	7.1	91
3	Biochemical characterization of the kink-turn RNA motif. Nucleic Acids Research, 2003, 31, 5544-5551.	14.5	87
4	Coordinated control of a designed <i>trans</i>â€acting ligase ribozyme by a loopâ€“receptor interaction. FEBS Letters, 2009, 583, 2819-2826.	2.8	19
5	Rational optimization of the DSL ligase ribozyme with GNRA/receptor interacting modules. Archives of Biochemistry and Biophysics, 2009, 490, 163-170.	3.0	17
6	Tectoâ€GIRz: Engineered Groupâ€…I Ribozyme the Catalytic Ability of Which Can Be Controlled by Selfâ€Dimerization. ChemBioChem, 2016, 17, 1448-1455.	2.6	16
7	Programmable formation of catalytic RNA triangles and squares by assembling modular RNA enzymes. Journal of Biochemistry, 2017, 161, mvw093.	1.7	15
8	Putative intermediary stages for the molecular evolution from a ribozyme to a catalytic RNP. Nucleic Acids Research, 2003, 31, 1488-1496.	14.5	14
9	Mutational analysis of structural elements in a class-I cyclic di-GMP riboswitch to elucidate its regulatory mechanism. Journal of Biochemistry, 2016, 160, 153-162.	1.7	13
10	Artificial RNA Motifs Expand the Programmable Assembly between RNA Modules of a Bimolecular Ribozyme Leading to Application to RNA Nanostructure Design. Biology, 2017, 6, 37.	2.8	10
11	Recognition of cyclicâ€diâ€<scp>GMP</scp> by a riboswitch conducts translational repression through masking the ribosomeâ€binding site distant from the aptamer domain. Genes To Cells, 2018, 23, 435-447.	1.2	10
12	Heterodimerization of Groupâ€…I Ribozymes Enabling Exon Recombination through Pairs of Cooperative <i>trans</i>â€Splicing Reactions. ChemBioChem, 2017, 18, 1659-1667.	2.6	9
13	Oligomerization of a modular ribozyme assembly of which is controlled by a programmable RNAâ€“RNA interface between two structural modules. Journal of Bioscience and Bioengineering, 2019, 128, 410-415.	2.2	9
14	Biogenic triamine and tetraamine activate core catalytic ability of Tetrahymena group I ribozyme in the absence of its large activator module. Biochemical and Biophysical Research Communications, 2018, 496, 594-600.	2.1	7
15	Effects of molecular crowding on a bimolecular group I ribozyme and its derivative that self-assembles to form ribozyme oligomers. Biochemical and Biophysical Research Communications, 2018, 507, 136-141.	2.1	7
16	Oligomerization of a Bimolecular Ribozyme Modestly Rescues its Structural Defects that Disturb Interdomain Assembly to Form the Catalytic Site. Journal of Molecular Evolution, 2018, 86, 431-442.	1.8	7
17	Characterization of an RNA receptor motif that recognizes a GCGA tetraloop. Bioscience, Biotechnology and Biochemistry, 2016, 80, 1386-1389.	1.3	6
18	Polyethylene glycol molecular crowders enhance the catalytic ability of bimolecular bacterial RNase P ribozymes. Nucleosides, Nucleotides and Nucleic Acids, 2020, 39, 715-729.	1.1	5

#	Article	IF	Citations
19	Flexible Assembly of Engineered Tetrahymena Ribozymes Forming Polygonal RNA Nanostructures with Catalytic Ability. ChemBioChem, 2021, 22, 2168-2176.	2.6	5
20	Modulation of Group I Ribozyme Activity by Cationic Porphyrins. Biology, 2015, 4, 251-263.	2.8	4
21	Use of a Fluorescent Aptamer RNA as an Exonic Sequence to Analyze Self-Splicing Ability of a Group I Intron from Structured RNAs. Biology, 2016, 5, 43.	2.8	4
22	Optimization of RNA-based c-di-GMP fluorescent sensors through tuning their structural modules. Journal of Bioscience and Bioengineering, 2016, 122, 183-187.	2.2	4
23	Effects of external molecular factors on adaptation of bacterial RNase P ribozymes to thermophilic conditions. Biochemical and Biophysical Research Communications, 2020, 523, 342-347.	2.1	4
24	Rational Engineering of a Modular Group I Ribozyme to Control Its Activity by Self-Dimerization. Methods in Molecular Biology, 2017, 1632, 325-340.	0.9	4
25	An RNA Triangle with Six Ribozyme Units Can Promote a Trans-Splicing Reaction through Trimerization of Unit Ribozyme Dimers. Applied Sciences (Switzerland), 2021, 11, 2583.	2.5	3
26	A Hexameric Ribozyme Nanostructure Formed by Doubleâ€Decker Assembly of a Pair of Triangular Ribozyme Trimers. ChemBioChem, 2022, , .	2.6	3
27	Comparative study of polyethylene polyamines as activator molecules for a structurally unstable group I ribozyme. Bioscience, Biotechnology and Biochemistry, 2018, 82, 1404-1407.	1.3	2
28	Rational Design of an Orthogonal Pair of Bimolecular RNase P Ribozymes through Heterologous Assembly of Their Modular Domains. Biology, 2019, 8, 65.	2.8	2
29	Box-shaped ribozyme octamer formed by face-to-face dimerization of a pair of square-shaped ribozyme tetramers. Journal of Bioscience and Bioengineering, 2022, 134, 195-202.	2.2	2
30	Catalytic RNA nano-objects formed by self-assembly of group I ribozyme dimers serving as unit structures. Journal of Bioscience and Bioengineering, 2020, 130, 253-259.	2.2	1
31	Artificial Ligase Ribozymes Isolated by a â€œDesign and Selectionâ€• Strategy. Methods in Molecular Biology, 2015, 1316, 113-125.	0.9	0
32	Distinct modulation of group I ribozyme activity among stereoisomers of a synthetic pentamine with structural constraints. Biochemical and Biophysical Research Communications, 2018, 504, 698-703.	2.1	0
33	Engineered Group I Ribozymes as RNA-Based Modular Tools to Control Gene Expression. , 2018, , 203-220.		0
34	Effects of chain length of polyethylene glycol molecular crowders on a mutant Tetrahymena group I ribozyme lacking large peripheral module. Nucleosides, Nucleotides and Nucleic Acids, 2021, 40, 867-883.	1.1	0