Shigeyoshi Matsumura

List of Publications by Year
in descending order

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Version: 2024-02-01

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	A Hexameric Ribozyme Nanostructure Formed by Doubleâ€Decker Assembly of a Pair of Triangular Ribozyme Trimers. ChemBioChem, 2022, , .	2.6	3
2	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
3	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
4	Flexible Assembly of Engineered Tetrahymena Ribozymes Forming Polygonal RNA Nanostructures with Catalytic Ability. ChemBioChem, 2021, 22, 2168-2176.	2.6	5
5	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
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	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
16	Engineered Group I Ribozymes as RNA-Based Modular Tools to Control Gene Expression. , 2018, , 203-220.		0
17	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
18	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

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19	Programmable formation of catalytic RNA triangles and squares by assembling modular RNA enzymes. Journal of Biochemistry, 2017, 161, mvw093.	1.7	15
20	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
21	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
22	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
23	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
24	Transient compartmentalization of RNA replicators prevents extinction due to parasites. Science, 2016, 354, 1293-1296.	12.6	116
25	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
26	Characterization of an RNA receptor motif that recognizes a GCGA tetraloop. Bioscience, Biotechnology and Biochemistry, 2016, 80, 1386-1389.	1.3	6
27	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
28	Modulation of Group I Ribozyme Activity by Cationic Porphyrins. Biology, 2015, 4, 251-263.	2.8	4
29	Artificial Ligase Ribozymes Isolated by a â€œDesign and Selectionâ€•Strategy. Methods in Molecular Biology, 2015, 1316, 113-125.	0.9	0
30	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
31	Rational optimization of the DSL ligase ribozyme with GNRA/receptor interacting modules. Archives of Biochemistry and Biophysics, 2009, 490, 163-170.	3.0	17
32	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
33	Putative intermediary stages for the molecular evolution from a ribozyme to a catalytic RNP. Nucleic Acids Research, 2003, 31, 1488-1496.	14.5	14
34	Biochemical characterization of the kink-turn RNA motif. Nucleic Acids Research, 2003, 31, 5544-5551.	14.5	87