Michael Yarus

List of Publications by Year
in descending order

81 papers	4,779 citations	81900 39 h-index	98798 67 g-index
122 all docs	122 docs citations	122 times ranked	2378 citing authors

#	Article	IF	Citations
1	Diversity of Oligonucleotide Functions. Annual Review of Biochemistry, 1995, 64, 763-797.	11.1	816
2	Three small ribooligonucleotides with specific arginine sites. Biochemistry, 1993, 32, 5497-5502.	2.5	197
3	RNAâ€"Amino Acid Binding: A Stereochemical Era for the Genetic Code. Journal of Molecular Evolution, 2009, 69, 406-429.	1.8	166
4	Transfer RNA Mutation and the Malleability of the Genetic Code. Journal of Molecular Biology, 1994, 235, 1377-1380.	4.2	163
5	How many catalytic RNAs? Ions and the Cheshire cat conjecture.. FASEB Journal, 1993, 7, 31-39.	0.5	157
6	ORIGINS OF THE GENETIC CODE: The Escaped Triplet Theory. Annual Review of Biochemistry, 2005, 74, 179-198.	11.1	155
7	Multiple translational products from a five-nucleotide ribozyme. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4585-4589.	7.1	136
8	Amino Acids as RNA Ligands: A Direct-RNA-Template Theory for the Code's Origin. Journal of Molecular Evolution, 1998, 47, 109-117.	1.8	126
9	An RNA pocket for an aliphatic hydrophobe. Nature Structural and Molecular Biology, 1994, 1, 287-292.	8.2	118
10	RNA-Catalyzed Amino Acid Activationâ€. Biochemistry, 2001, 40, 6998-7004.	2.5	112
11	RNAâ€"ligand chemistry: A testable source for the genetic code. Rna, 2000, 6, 475-484.	3.5	104
12	Specific RNA binding to ordered phospholipid bilayers. Nucleic Acids Research, 2006, 34, 2128-2136.	14.5	99
13	RNA-Catalyzed CoA, NAD, and FAD Synthesis from Phosphopantetheine, NMN, and FMNâ€. Biochemistry, 2000, 39, 15548-15555.	2.5	98
14	On malleability in the genetic code. Journal of Molecular Evolution, 1996, 42, 597-601.	1.8	96
15	A tiny RNA that catalyzes both aminoacyl-RNA and peptidyl-RNA synthesis. Rna, 1999, 5, 1482-1489.	3.5	92
16	How Mitochondria Redefine the Code. Journal of Molecular Evolution, 2001, 53, 299-313.	1.8	88
17	An Inhibitor of Ribosomal Peptidyl Transferase Using the Transition-State Analogy. Biochemistry, 1995, 34, 385-390.	2.5	83
18	Selection of the simplest RNA that binds isoleucine. Rna, 2003, 9, 1315-1322.	3.5	83

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19	Intrinsic Precision of Aminoacyl-tRNA Synthesis Enhanced through Parallel Systems of Ligands. Nature: New Biology, 1972, 239, 106-108.	4.5	77
20	Genetic code origins. Nature, 1989, 342, 349-350.	27.8	68
21	Getting Past the RNA World: The Initial Darwinian Ancestor. Cold Spring Harbor Perspectives in Biology, 2011, 3, a003590-a003590.	5.5	68
22	The Genetic Code and RNA-Amino Acid Affinities. Life, 2017, 7, 13.	2.4	65
23	Coenzymes as coribozymes. Biochimie, 2002, 84, 877-888.	2.6	64
24	[19] Affinity selection-amplification from randomized ribooligonucleotide pools. Methods in Enzymology, 1996, 267, 315-335.	1.0	63
25	5â€˜-RNA Self-Capping from Guanosine Diphosphate. Biochemistry, 1997, 36, 6557-6563.	2.5	61
26	Boundaries for an RNA world. Current Opinion in Chemical Biology, 1999, 3, 260-267.	6.1	61
27	RNA Affinity for Molecular L-Histidine; Genetic Code Origins. Journal of Molecular Evolution, 2005, 61, 226-235.	1.8	61
28	Abundance of correctly folded RNA motifs in sequence space, calculated on computational grids. Nucleic Acids Research, 2005, 33, 5924-5935.	14.5	60
29	An axial binding site in the Tetrahymena precursor RNA. Journal of Molecular Biology, 1991, 222, 995-1012.	4.2	57
30	Size, constant sequences, and optimal selection. Rna, 2005, 11, 1701-1709.	3.5	55
31	Finding specific RNA motifs: Function in a zeptomole world?. Rna, 2003, 9, 218-230.	3.5	52
32	Acyl-CoAs from Coenzyme Ribozymesâ€. Biochemistry, 2002, 41, 723-729.	2.5	51
33	A diminutive and specific RNA binding site for L-tryptophan. Nucleic Acids Research, 2005, 33, 5482-5493.	14.5	51
34	Primordial Genetics: Phenotype of the Ribocyte. Annual Review of Genetics, 2002, 36, 125-151.	7.6	50
35	Visualization of membrane RNAs. Rna, 2003, 9, 1353-1361.	3.5	50
36	Catalyzed and Spontaneous Reactions on Ribozyme Ribose. Journal of the American Chemical Society, 2011, 133, 6044-6050.	13.7	48

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37	A membrane transporter for tryptophan composed of RNA. Rna, 2004, 10, 1541-1549.	3.5	45
38	23S rRNA Similarity from Selection for Peptidyl Transferase Mimicry. Biochemistry, 1997, 36, 6614-6623.	2.5	42
39	The meaning of a minuscule ribozyme. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 2902-2909.	4.0	41
40	BayesFold: Rational 2Â folds that combine thermodynamic, covariation, and chemical data for aligned RNA sequences. Rna, 2004, 10, 1323-1336.	3.5	39
41	A twisted tRNA intermediate sets the threshold for decoding. Rna, 2003, 9, 384-385.	3.5	38
42	Essential structures of a self-aminoacylating RNA. Journal of Molecular Biology, 1997, 274, 519-529.	4.2	37
43	tRNA Structure and Ribosomal Function. Journal of Molecular Biology, 1994, 235, 1395-1405.	4.2	35
44	A More Complex Isoleucine Aptamer with a Cognate Triplet. Journal of Biological Chemistry, 2005, 280, 19815-19822.	3.4	35
45	Simple, recurring RNA binding sites for L-arginine. Rna, 2010, 16, 805-816.	3.5	35
46	Small-molecule-substrate interactions with a self-aminoacylating ribozyme. Journal of Molecular Biology, 1997, 268, 631-639.	4.2	34
47	RNA enzymes with two small-molecule substrates. Chemistry and Biology, 1998, 5, 669-678.	6.0	33
48	Phenylalanine-Binding RNAs and Genetic Code Evolution. Journal of Molecular Evolution, 2002, 54, 298-311.	1.8	33
49	Error Minimization and Coding Triplet/Binding Site Associations Are Independent Features of the Canonical Genetic Code. Journal of Molecular Evolution, 2005, 61, 597-607.	1.8	32
50	Co-optimization of ribozyme substrate stacking and l-arginine binding. Journal of Molecular Biology, 1992, 225, 945-949.	4.2	26
51	tRNA on the Ribosome: a Waggle Theory. , 0, , 443-469.		23
52	Suppression of eukaryotic translation termination by selected RNAs. Rna, 2000, 6, 1468-1479.	3.5	21
53	Natural and artificial RNAs occupy the same restricted region of sequence space. Rna, 2010, 16, 280-289.	3.5	21
54	Peptidyl transferase: ancient and exiguous. Chemistry and Biology, 2000, 7, R187-R190.	6.0	19

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55	Evolution of the Standard Genetic Code. Journal of Molecular Evolution, 2021, 89, 19-44.	1.8	18
56	Darwinian Behavior in a Cold, Sporadically Fed Pool of Ribonucleotides. Astrobiology, 2012, 12, 870-883.	3.0	16
57	The Plausibility of RNA-Templated Peptides: Simultaneous RNA Affinity for Adjacent Peptide Side Chains. Journal of Molecular Evolution, 2012, 74, 217-225.	1.8	16
58	A cloned suppressor tRNA gene relaxes stringent control. Molecular Genetics and Genomics, 1980, 179, 125-133.	2.4	15
59	Crick Wobble and Superwobble in Standard Genetic Code Evolution. Journal of Molecular Evolution, 2021, 89, 50-61.	1.8	14
60	Small aminoacyl transfer centers at GU within a larger RNA. RNA Biology, 2012, 9, 59-66.	3.1	13
61	Poly(U) RNA-templated synthesis of AppA. Rna, 2015, 21, 1818-1825.	3.5	13
62	Chiral histidine selection by D-ribose RNA. Rna, 2010, 16, 2370-2383.	3.5	12
63	Information, probability, and the abundance of the simplest RNA active sites. Frontiers in Bioscience - Landmark, 2008, Volume, 6060.	3.0	11
64	Nucleotides that are essential but not conserved; a sufficient L-tryptophan site in RNA. Rna, 2010, 16, 1915-1924.	3.5	11
65	Cross-backbone templating; ribodinucleotides made on poly(C). Rna, 2016, 22, 397-407.	3.5	11
66	A ribonucleotide Origin for Life â€“ Fluctuation and Near-ideal Reactions. Origins of Life and Evolution of Biospheres, 2013, 43, 19-30.	1.9	10
67	Optimal Evolution of the Standard Genetic Code. Journal of Molecular Evolution, 2021, 89, 45-49.	1.8	10
68	Fitting the standard genetic code into its triplet table. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	10
69	Amber suppression relaxes stringent control by elongating stringent factor. Molecular Genetics and Genomics, 1982, 187, 254-264.	2.4	8
70	Efficient Heritable Gene Expression Readily Evolves in RNA Pools. Journal of Molecular Evolution, 2017, 84, 236-252.	1.8	8
71	Eighty routes to a ribonucleotide world; dispersion and stringency in the decisive selection. Rna, 2018, 24, 1041-1055.	3.5	7
72	Ahead and behind: a small, small RNA world. Rna, 2015, 21, 769-770.	3.5	6

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73	Biochemical Refinement Before Genetics: Chance Utility. Journal of Molecular Evolution, 2016, 83, 89-92.	1.8	6
74	Mutations that overcome plasmid-mediated relaxation affect (p)ppGpp. Molecular Genetics and Genomics, 1980, 179, 119-124.	2.4	5
75	Non-Watsonâ€"Crick RNA synthesis suited to origin functions. Rna, 2018, 24, 90-97.	3.5	4
76	Bring them back alive. Nature, 2005, 438, 40-40.	27.8	3
77	Climbing in 190 Dimensions. Science, 2011, 332, 181-182.	12.6	2
78	Specific binding of VegT mRNA localization signal to membranes in Xenopus oocytes. Biochimica Et Biophysica Acta - Molecular Cell Research, 2021, 1868, 118952.	4.1	2
79	Translation Termination. Molecular Cell, 2001, 8, 733-734.	9.7	1
80	RNA as Multitude/RNA as One. Chemistry and Biology, 2003, 10, 1146-1148.	6.0	0
81	A twisted tRNA intermediate sets the threshold for decoding. journal of hand surgery Asian-Pacific volume, The, 2018, , 359-360.	0.4	0