Marina Rodnina

List of Publications by Year
in descending order

236	18,370	8732 75	17055 122
papers	citations	h-index	g-index

256	256	256	9747
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hydrolysis of GTP by elongation factor G drives tRNA movement on the ribosome. Nature, 1997, 385, 37-41.	13.7	456
2	Structural basis for the inhibition of the eukaryotic ribosome. Nature, 2014, 513, 517-522.	13.7	434
3	EF-P Is Essential for Rapid Synthesis of Proteins Containing Consecutive Proline Residues. Science, 2013, 339, 85-88.	6.0	418
4	Ribosome dynamics and tRNA movement by time-resolved electron cryomicroscopy. Nature, 2010, 466, 329-333.	13.7	400
5	Structural Basis for the Function of the Ribosomal L7/12 Stalk in Factor Binding and GTPase Activation. Cell, 2005, 121, 991-1004.	13.5	354
6	Visualization of elongation factor Tu on the Escherichia coli ribosome. Nature, 1997, 389, 403-406.	13.7	342
7	Structure of the E. coli ribosomeâ€“EF-Tu complex at <3ÂÃ… resolution by Cs-corrected cryo-EM. Nature, 2015, 520, 567-570.	13.7	338
8	Complete kinetic mechanism of elongation factor Tu-dependent binding of aminoacyl-tRNA to the A site of the E.coli ribosome. EMBO Journal, 1998, 17, 7490-7497.	3.5	333
9	Kinetic Determinants of High-Fidelity tRNA Discrimination on the Ribosome. Molecular Cell, 2004, 13, 191-200.	4.5	317
10	The ribosome as an entropy trap. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 7897-7901.	3.3	311
11	Structural and Functional Investigation of a Putative Archaeal Selenocysteine Synthaseâ€,â€¡. Biochemistry, 2005, 44, 13315-13327.	1.2	297
12	Synonymous Codons Direct Cotranslational Folding toward Different Protein Conformations. Molecular Cell, 2016, 61, 341-351.	4.5	297
13	Large-Scale Movement of Elongation Factor G and Extensive Conformational Change of the Ribosome during Translocation. Cell, 2000, 100, 301-309.	13.5	294
14	Fidelity of Aminoacyl-tRNA Selection on the Ribosome: Kinetic and Structural Mechanisms. Annual Review of Biochemistry, 2001, 70, 415-435.	5.0	294
15	Induced fit in initial selection and proofreading of aminoacyl-tRNA on the ribosome. EMBO Journal, 1999, 18, 3800-3807.	3.5	293
16	An Elongation Factor G-Induced Ribosome Rearrangement Precedes tRNA-mRNA Translocation. Molecular Cell, 2003, 11, 1517-1523.	4.5	275
17	Arrangement of tRNAs in Pre- and Posttranslocational Ribosomes Revealed by Electron Cryomicroscopy. Cell, 1997, 88, 19-28.	13.5	247
18	<scp>NSUN</scp> 3 and <scp>ABH</scp> 1 modify the wobble position of mtâ€ť <scp>RNA</scp> ^{Met} to expand codon recognition in mitochondrial translation. EMBO Journal, 2016, 35, 2104-2119.	3.5	197

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19	Translation in Prokaryotes. Cold Spring Harbor Perspectives in Biology, 2018, 10, a032664.	2.3	186
20	GTP consumption of elongation factor Tu during translation of heteropolymeric mRNAs.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 1945-1949.	3.3	184
21	Thiostrepton inhibits the turnover but not the GTPase of elongation factor G on the ribosome. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 9586-9590.	3.3	178
22	Cotranslational protein folding on the ribosome monitored in real time. Science, 2015, 350, 1104-1107.	6.0	178
23	Conformational switch in the decoding region of 16S rRNA during aminoacyl-tRNA selection on the ribosome. Nature Structural Biology, 2000, 7, 104-107.	9.7	177
24	Conformational Changes of the Small Ribosomal Subunit During Elongation Factor G-dependent tRNAâ€"mRNA Translocation. Journal of Molecular Biology, 2004, 343, 1183-1194.	2.0	168
25	Structure of ratcheted ribosomes with tRNAs in hybrid states. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16924-16927.	3.3	161
26	Signal sequenceâ€"independent membrane targeting of ribosomes containing short nascent peptides within the exit tunnel. Nature Structural and Molecular Biology, 2008, 15, 494-499.	3.6	157
27	The nucleotide-binding site of bacterial translation initiation factor 2 (IF2) as a metabolic sensor. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13962-13967.	3.3	155
28	The ribosome in action: Tuning of translational efficiency and protein folding. Protein Science, 2016, 25, 1390-1406.	3.1	154
29	Important Contribution to Catalysis of Peptide Bond Formation by a Single Ionizing Group within the Ribosome. Molecular Cell, 2002, 10, 339-346.	4.5	152
30	Energy barriers and driving forces in tRNA translocation through the ribosome. Nature Structural and Molecular Biology, 2013, 20, 1390-1396.	3.6	150
31	The Ribosomal Peptidyl Transferase. Molecular Cell, 2007, 26, 311-321.	4.5	148
32	Programmed â€"1 Frameshifting by Kinetic Partitioning during Impeded Translocation. Cell, 2014, 157, 1619-1631.	13.5	143
33	Initial Binding of the Elongation Factor TuÂ·GTPÂ·Aminoacyl-tRNA Complex Preceding Codon Recognition on the Ribosome. Journal of Biological Chemistry, 1996, 271, 646-652.	1.6	142
34	A Uniform Response to Mismatches in Codon-Anticodon Complexes Ensures Ribosomal Fidelity. Molecular Cell, 2006, 21, 369-377.	4.5	142
35	Modulation of the Rate of Peptidyl Transfer on the Ribosome by the Nature of Substrates. Journal of Biological Chemistry, 2008, 283, 32229-32235.	1.6	141
36	Transient Conformational States of Aminoacyl-tRNA during Ribosome Binding Catalyzed by Elongation Factor Tu. Biochemistry, 1994, 33, 12267-12275.	1.2	139

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37	GTPase Activation of Elongation Factors Tu and G on the Ribosomeâ€. Biochemistry, 2002, 41, 12520-12528.	1.2	138
38	tRNA tK ^{UUU} , tQ ^{UUG} , and tE ^{UUC} wobble position modifications fine-tune protein translation by promoting ribosome A-site binding. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12289-12294.	3.3	138
39	Essential Role of Histidine 84 in Elongation Factor Tu for the Chemical Step of GTP Hydrolysis on the Ribosome. Journal of Molecular Biology, 2003, 332, 689-699.	2.0	137
40	Sequence of Steps in Ribosome Recycling as Defined by Kinetic Analysis. Molecular Cell, 2005, 18, 403-412.	4.5	137
41	Recognition and selection of tRNA in translation. FEBS Letters, 2005, 579, 938-942.	1.3	137
42	The signal recognition particle binds to protein L23 at the peptide exit of the Escherichia coli ribosome. Rna, 2003, 9, 566-573.	1.6	135
43	How ribosomes make peptide bonds. Trends in Biochemical Sciences, 2007, 32, 20-26.	3.7	131
44	An antimicrobial peptide that inhibits translation by trapping release factors on the ribosome. Nature Structural and Molecular Biology, 2017, 24, 752-757.	3.6	123
45	Evolutionary optimization of speed and accuracy of decoding on the ribosome. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 2979-2986.	1.8	120
46	Structural Basis for Polyproline-Mediated Ribosome Stalling and Rescue by the Translation Elongation Factor EF-P. Molecular Cell, 2017, 68, 515-527.e6.	4.5	118
47	Distinct functions of elongation factor G in ribosome recycling and translocation. Rna, 2009, 15, 772-780.	1.6	117
48	Mechanisms of elongation on the ribosome: dynamics of a macromolecular machine. Biochemical Society Transactions, 2004, 32, 733-737.	1.6	115
49	Kinetic Checkpoint at a Late Step in Translation Initiation. Molecular Cell, 2008, 30, 712-720.	4.5	115
50	Recent mechanistic insights into eukaryotic ribosomes. Current Opinion in Cell Biology, 2009, 21, 435-443.	2.6	115
51	Role and timing of GTP binding and hydrolysis during EF-G-dependent tRNA translocation on the ribosome. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13670-13675.	3.3	113
52	Ribosome fidelity: tRNA discrimination, proofreading and induced fit. Trends in Biochemical Sciences, 2001, 26, 124-130.	3.7	112
53	The ribosome as a molecular machine: the mechanism of tRNAâ€"mRNA movement in translocation. Biochemical Society Transactions, 2011, 39, 658-662.	1.6	111
54	Transient Kinetics, Fluorescence, and FRET in Studies of Initiation of Translation in Bacteria. Methods in Enzymology, 2007, 430, 1-30.	0.4	110

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55	Peptide bond formation does not involve acid-base catalysis by ribosomal residues. Nature Structural and Molecular Biology, 2006, 13, 423-428.	3.6	109
56	Ribosome interactions of aminoacyl-tRNA and elongation factor Tu in the codon-recognition complex. Nature Structural Biology, 2002, 9, 849-54.	9.7	108
57	Role of Domains 4 and 5 in Elongation Factor G Functions on the Ribosome. Journal of Molecular Biology, 2000, 300, 951-961.	2.0	107
58	Purine bases at position 37 of tRNA stabilize codon-anticodon interaction in the ribosomal A site by stacking and Mg2+-dependent interactions. Rna, 2004, 10, 90-101.	1.6	106
59	Control of phosphate release from elongation factor G by ribosomal protein L7/12. EMBO Journal, 2005, 24, 4316-4323.	3.5	105
60	Changed in translation: mRNA recoding by â^'1 programmed ribosomal frameshifting. Trends in Biochemical Sciences, 2015, 40, 265-274.	3.7	105
61	Kinetic Mechanism of Elongation Factor Ts-Catalyzed Nucleotide Exchange in Elongation Factor Tuâ€. Biochemistry, 2002, 41, 162-169.	1.2	104
62	The Cryo-EM Structure of a Complete 30S Translation Initiation Complex from Escherichia coli. PLoS Biology, 2011, 9, e1001095.	2.6	102
63	Coupling of GTP Hydrolysis by Elongation Factor G to Translocation and Factor Recycling on the Ribosomeâ€. Biochemistry, 2002, 41, 12806-12812.	1.2	101
64	Streptomycin interferes with conformational coupling between codon recognition and GTPase activation on the ribosome. Nature Structural and Molecular Biology, 2004, 11, 316-322.	3.6	98
65	Co-translational protein folding: progress and methods. Current Opinion in Structural Biology, 2017, 42, 83-89.	2.6	98
66	Energetic contribution of tRNA hybrid state formation to translocation catalysis on the ribosome. Nature Structural Biology, 2000, 7, 1027-1031.	9.7	95
67	Kinetic control of translation initiation in bacteria. Critical Reviews in Biochemistry and Molecular Biology, 2012, 47, 334-348.	2.3	95
68	Optimization of speed and accuracy of decoding in translation. EMBO Journal, 2010, 29, 3701-3709.	3.5	94
69	The pathway to GTPase activation of elongation factor SelB on the ribosome. Nature, 2016, 540, 80-85.	13.7	93
70	Late events of translation initiation in bacteria: a kinetic analysis. EMBO Journal, 2000, 19, 2127-2136.	3.5	90
71	Real-time assembly landscape of bacterial 30S translation initiation complex. Nature Structural and Molecular Biology, 2012, 19, 609-615.	3.6	88
72	Entropic Contribution of Elongation Factor P to Proline Positioning at the Catalytic Center of the Ribosome. Journal of the American Chemical Society, 2015, 137, 12997-13006.	6.6	88

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73	Spontaneous reverse movement of mRNA-bound tRNA through the ribosome. Nature Structural and Molecular Biology, 2007, 14, 318-324.	3.6	87
74	The ribosomeâ€bound initiation factor 2 recruits initiator tRNA to the 30S initiation complex. EMBO Reports, 2010, 11, 312-316.	2.0	86
75	The crystal structure of unmodified tRNA Phe from Escherichia coli. Nucleic Acids Research, 2010, 38, 4154-4162.	6.5	85
76	GTP hydrolysis by EF-G synchronizes tRNA movement on small and large ribosomal subunits. EMBO Journal, 2014, 33, 1073-1085.	3.5	81
77	GTPase Mechanisms and Functions of Translation Factors on the Ribosome. Biological Chemistry, 2000, 381, 377-87.	1.2	79
78	Trigger factor binds to ribosome-signal-recognition particle (SRP) complexes and is excluded by binding of the SRP receptor. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 7902-7906.	3.3	77
79	Essential Mechanisms in the Catalysis of Peptide Bond Formation on the Ribosome. Journal of Biological Chemistry, 2005, 280, 36065-36072.	1.6	77
80	Different substrate-dependent transition states in the active site of the ribosome. Nature, 2011, 476, 351-354.	13.7	77
81	Choreography of molecular movements during ribosome progression along mRNA. Nature Structural and Molecular Biology, 2016, 23, 342-348.	3.6	77
82	Ribosome dynamics during decoding. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160182.	1.8	76
83	The "allosteric three-site model" of elongation cannot be confirmed in a well-defined ribosome system from Escherichia coli.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 12183-12188.	3.3	75
84	Stimulation of the GTPase Activity of Translation Elongation Factor G by Ribosomal Protein L7/12. Journal of Biological Chemistry, 2000, 275, 890-894.	1.6	74
85	Interaction of Helix D of Elongation Factor Tu with Helices 4 and 5 of Protein L7/12 on the Ribosome. Journal of Molecular Biology, 2004, 336, 1011-1021.	2.0	73
86	The ribosomeâ€™s response toÂcodonâ€“anticodon mismatches. Biochimie, 2006, 88, 1001-1011.	1.3	73
87	Amicoumacin A Inhibits Translation by Stabilizing mRNA Interaction with the Ribosome. Molecular Cell, 2014, 56, 531-540.	4.5	73
88	Review: Translational GTPases. Biopolymers, 2016, 105, 463-475.	1.2	73
89	Conformational changes in the bacterial SRP receptor FtsY upon binding of guanine nucleotides and SRP. Journal of Molecular Biology, 2000, 295, 745-753.	2.0	72
90	Ribosomal RNA is the target for oxazolidinones, a novel class of translational inhibitors. Rna, 1999, 5, 939-946.	1.6	71

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91	Intact Aminoacyl-tRNA Is Required To Trigger GTP Hydrolysis by Elongation Factor Tu on the Ribosomeâ€. Biochemistry, 2000, 39, 1734-1738.	1.2	71
92	Cotranslational Folding of Proteins on the Ribosome. Biomolecules, 2020, 10, 97.	1.8	71
93	Kinetic Analysis of Interaction of Eukaryotic Release Factor 3 with Guanine Nucleotides. Journal of Biological Chemistry, 2006, 281, 40224-40235.	1.6	70
94	Essential structural elements in tRNAPro for EF-P-mediated alleviation of translation stalling. Nature Communications, 2016, 7, 11657.	5.8	68
95	Conformationally Restricted Elongation Factor G Retains GTPase Activity but Is Inactive in Translocation on the Ribosome. Molecular Cell, 2000, 6, 501-505.	4.5	67
96	Thio-Modification of tRNA at the Wobble Position as Regulator of the Kinetics of Decoding and Translocation on the Ribosome. Journal of the American Chemical Society, 2017, 139, 5857-5864.	6.6	66
97	Dynamic switch of the signal recognition particle from scanning to targeting. Nature Structural and Molecular Biology, 2012, 19, 1332-1337.	3.6	65
98	Important role of the tetraloop region of 4.5S RNA in SRP binding to its receptor FtsY. Rna, 2001, 7, 293-301.	1.6	64
99	Protein Elongation, Co-translational Folding and Targeting. Journal of Molecular Biology, 2016, 428, 2165-2185.	2.0	64
100	Interaction of Guanine Nucleotides with the Signal Recognition Particle from Escherichia coli. Biochemistry, 1998, 37, 15408-15413.	1.2	63
101	Delayed Release of Inorganic Phosphate from Elongation Factor Tu Following GTP Hydrolysis on the Ribosomeâ€. Biochemistry, 2006, 45, 12767-12774.	1.2	62
102	Dual use of GTP hydrolysis by elongation factor G on the ribosome. Translation, 2013, 1, e24315.	2.9	62
103	Codon Reading by tRNAAla with Modified Uridine in the Wobble Position. Molecular Cell, 2007, 25, 167-174.	4.5	61
104	Translational recoding: canonical translation mechanisms reinterpreted. Nucleic Acids Research, 2020, 48, 1056-1067.	6.5	61
105	Codon-dependent conformational change of elongation factor Tu preceding GTP hydrolysis on the ribosome. EMBO Journal, 1995, 14, 2613-9.	3.5	57
106	Impact of methylations of m2G966/m5C967 in 16S rRNA on bacterial fitness and translation initiation. Nucleic Acids Research, 2012, 40, 7885-7895.	6.5	55
107	Fluctuations between multiple EF-G-induced chimeric tRNA states during translocation on the ribosome. Nature Communications, 2015, 6, 7442.	5.8	55
108	A Kinetic Safety Gate Controlling the Delivery of Unnatural Amino Acids to the Ribosome. Journal of the American Chemical Society, 2013, 135, 17031-17038.	6.6	53

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109	The ribosome as a versatile catalyst: reactions at the peptidyl transferase center. Current Opinion in Structural Biology, 2013, 23, 595-602.	2.6	53
110	Translational Control by Ribosome Pausing in Bacteria: How a Non-uniform Pace of Translation Affects Protein Production and Folding. Frontiers in Microbiology, 2020, 11, 619430.	1.5	53
111	Purification of fMET-tRNAfMET by Fast Protein Liquid Chromatography. Analytical Biochemistry, 1994, 219, 380-381.	1.1	52
112	Kinetics of Spontaneous and EF-G-Accelerated Rotation of Ribosomal Subunits. Cell Reports, 2016, 16, 2187-2196.	2.9	52
113	tRNA wobble modifications and protein homeostasis. Translation, 2016, 4, e1143076.	2.9	52
114	Mechanism of peptide bond formation on the ribosome. Quarterly Reviews of Biophysics, 2006, 39, 203-225.	2.4	50
115	Dynamics of translation on the ribosome: molecular mechanics of translocation. FEMS Microbiology Reviews, 1999, 23, 317-333.	3.9	49
116	Structural dynamics of ribosomal RNA during decoding on the ribosome. Biochimie, 2002, 84, 745-754.	1.3	49
117	Truncated elongation factor G lacking the G domain promotes translocation of the 3' end but not of the anticodon domain of peptidyl-tRNA.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 4202-4206.	3.3	48
118	Rapid peptide bond formation on isolated 50S ribosomal subunits. EMBO Reports, 2006, 7, 699-703.	2.0	48
119	Lateral opening of the bacterial translocon on ribosome binding and signal peptide insertion. Nature Communications, 2014, 5, 5263.	5.8	48
120	Visualization of translation termination intermediates trapped by the ApidaecinÂ137 peptide during RF3-mediated recycling of RF1. Nature Communications, 2018, 9, 3053.	5.8	48
121	Exploration of the conserved A+C wobble pair within the ribosomal peptidyl transferase center using affinity purified mutant ribosomes. Nucleic Acids Research, 2004, 32, 3760-3770.	6.5	47
122	Deducing the Kinetics of Protein Synthesis In Vivo from the Transition Rates Measured In Vitro. PLoS Computational Biology, 2014, 10, e1003909.	1.5	45
123	The G2447A mutation does not affect ionization of a ribosomal group taking part in peptide bond formation. Rna, 2003, 9, 919-922.	1.6	44
124	An Uncharged Amine in the Transition State of the Ribosomal Peptidyl Transfer Reaction. Chemistry and Biology, 2008, 15, 493-500.	6.2	44
125	Site-Directed Mutagenesis of Thermus thermophilus Elongation Factor Tu. Replacement of His85, Asp81 and Arg300. FEBS Journal, 1995, 229, 596-604.	0.2	44
126	Peptide bond formation on the ribosome: structure and mechanism. Current Opinion in Structural Biology, 2003, 13, 334-340.	2.6	43

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127	Ribosome-induced tuning of GTP hydrolysis by a translational GTPase. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14418-14423.	3.3	43
128	Mechanisms and biomedical implications of â€“1 programmed ribosome frameshifting on viral and bacterial mRNAs. FEBS Letters, 2019, 593, 1468-1482.	1.3	43
129	Directional transition from initiation to elongation in bacterial translation. Nucleic Acids Research, 2015, 43, 10700-10712.	6.5	41
130	Conditional Switch between Frameshifting Regimes upon Translation of dnaX mRNA. Molecular Cell, 2017, 66, 558-567.e4.	4.5	41
131	Converting GTP hydrolysis into motion: versatile translational elongation factor G. Biological Chemistry, 2019, 401, 131-142.	1.2	41
132	Mechanism of Elongation Factor (EF)-Ts-catalyzed Nucleotide Exchange in EF-Tu. Journal of Biological Chemistry, 2002, 277, 6032-6036.	1.6	40
133	Translation error clusters induced by aminoglycoside antibiotics. Nature Communications, 2021, 12, 1830.	5.8	40
134	Quality control of mRNA decoding on the bacterial ribosome. Advances in Protein Chemistry and Structural Biology, 2012, 86, 95-128.	1.0	39
135	The G222D mutation in elongation factor Tu inhibits the codon-induced conformational changes leading to GTPase activation on the ribosome.. EMBO Journal, 1996, 15, 6766-6774.	3.5	38
136	Domain rearrangement of SRP protein Ffh upon binding 4.5S RNA and the SRP receptor FtsY. Rna, 2005, 11, 947-957.	1.6	38
137	Thermodynamic and Kinetic Framework of Selenocysteyl-tRNASec Recognition by Elongation Factor SelB. Journal of Biological Chemistry, 2010, 285, 3014-3020.	1.6	38
138	Major reorientation of tRNA substrates defines specificity of dihydrouridine synthases. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6033-6037.	3.3	38
139	Active role of elongation factor G in maintaining the mRNA reading frame during translation. Science Advances, 2019, 5, eaax8030.	4.7	38
140	Dynamics of ribosomes and release factors during translation termination in E. coli. ELife, 2018, 7, .	2.8	38
141	Elongation factor Tu, a GTPase triggered by codon recognition on the ribosome: mechanism and GTP consumption. Biochemistry and Cell Biology, 1995, 73, 1221-1227.	0.9	36
142	Colicin E3 cleavage of 16S rRNA impairs decoding and accelerates tRNA translocation on <i>Escherichia coli</i> ribosomes. Molecular Microbiology, 2008, 69, 390-401.	1.2	36
143	Ribosome clearance by FusB-type proteins mediates resistance to the antibiotic fusidic acid. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2102-2107.	3.3	36
144	Gradual compaction of the nascent peptide during cotranslational folding on the ribosome. ELife, 2020, 9, .	2.8	36

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145	Modulation of HIV-1 Gag/Gag-Pol frameshifting by tRNA abundance. Nucleic Acids Research, 2019, 47, 5210-5222.	6.5	35
146	Kinetics of the Interactions between Yeast Elongation Factors 1A and 1BÎ±, Guanine Nucleotides, and Aminoacyl-tRNA. Journal of Biological Chemistry, 2007, 282, 35629-35637.	1.6	34
147	Thermodynamic control of â˜1 programmed ribosomal frameshifting. Nature Communications, 2019, 10, 4598.	5.8	34
148	The Importance of Structural Transitions of the Switch II Region for the Functions of Elongation Factor Tu on the Ribosome. Journal of Biological Chemistry, 2001, 276, 22183-22190.	1.6	33
149	Inactivation of the Elongation Factor Tu by Mosquitocidal Toxin-Catalyzed Mono-ADP-Ribosylation. Applied and Environmental Microbiology, 2002, 68, 4894-4899.	1.4	33
150	Dual function of GTPBP6 in biogenesis and recycling of human mitochondrial ribosomes. Nucleic Acids Research, 2020, 48, 12929-12942.	6.5	33
151	Structural mechanism of GTPase-powered ribosome-tRNA movement. Nature Communications, 2021, 12, 5933.	5.8	33
152	Evolution of the protein stoichiometry in the L12 stalk of bacterial and organellar ribosomes. Nature Communications, 2013, 4, 1387.	5.8	32
153	Ribosome rearrangements at the onset of translational bypassing. Science Advances, 2017, 3, e1700147.	4.7	31
154	Co-Translational Folding Trajectory of the HemK Helical Domain. Biochemistry, 2018, 57, 3460-3464.	1.2	31
155	Arginines 29 and 59 of elongation factor G are important for GTP hydrolysis or translocation on the ribosome. EMBO Journal, 2000, 19, 3458-3464.	3.5	30
156	Conformations of the Signal Recognition Particle Protein Ffh from Escherichia coli as Determined by FRET. Journal of Molecular Biology, 2005, 351, 417-430.	2.0	30
157	Signal recognition particle binds to translating ribosomes before emergence of a signal anchor sequence. Nucleic Acids Research, 2017, 45, 11858-11866.	6.5	30
158	Translation initiation in bacterial polysomes through ribosome loading on a standby site on a highly translated mRNA. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4411-4416.	3.3	30
159	Colicins and their potential in cancer treatment. Blood Cells, Molecules, and Diseases, 2007, 38, 15-18.	0.6	29
160	Timing of GTP binding and hydrolysis by translation termination factor RF3. Nucleic Acids Research, 2014, 42, 1812-1820.	6.5	28
161	High-efficiency translational bypassing of non-coding nucleotides specified by mRNA structure and nascent peptide. Nature Communications, 2014, 5, 4459.	5.8	28
162	Broad range of missense error frequencies in cellular proteins. Nucleic Acids Research, 2019, 47, 2932-2945.	6.5	27

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163	Elongation factor G-induced structural change in helix 34 of 16S rRNA related to translocation on the ribosome. Rna, 2001, 7, 1879-85.	1.6	27
164	Two tRNA-binding sites in addition to A and P sites on eukaryotic ribosomes. Journal of Molecular Biology, 1992, 228, 450-459.	2.0	26
165	Mechanism of tRNA Translocation on the Ribosome. Molecular Biology, 2001, 35, 559-568.	0.4	26
166	Mechanism of ribosome rescue by alternative ribosome-rescue factor B. Nature Communications, 2020, 11, 4106.	5.8	26
167	Conformation of 4.5S RNA in the signal recognition particle and on the 30S ribosomal subunit. Rna, 2005, 11, 1374-1384.	1.6	25
168	Synchronous tRNA movements during translocation on the ribosome are orchestrated by elongation factor G and GTP hydrolysis. BioEssays, 2014, 36, 908-918.	1.2	25
169	Functions of unconventional mammalian translational GTPases GTPBP1 and GTPBP2. Genes and Development, 2018, 32, 1226-1241.	2.7	25
170	Aminoacyl-tRNA-Charged Eukaryotic Elongation Factor 1A Is the Bona Fide Substrate for Legionella pneumophila Effector Glucosyltransferases. PLoS ONE, 2011, 6, e29525.	1.1	25
171	Elongation factor P: Function and effects on bacterial fitness. Biopolymers, 2013, 99, 837-845.	1.2	24
172	Translocation as continuous movement through the ribosome. RNA Biology, 2016, 13, 1197-1203.	1.5	24
173	Small synthetic molecule-stabilized RNA pseudoknot as an activator for â€“1 ribosomal frameshifting. Nucleic Acids Research, 2018, 46, 8079-8089.	6.5	24
174	Mechanism of Elongation Factor G Function in tRNA Translocation on the Ribosome. Cold Spring Harbor Symposia on Quantitative Biology, 2001, 66, 449-458.	2.0	24
175	Mutations at the accommodation gate of the ribosome impair RF2-dependent translation termination. Rna, 2010, 16, 1848-1853.	1.6	23
176	Translational elongation factor G: a GTP-driven motor of the ribosome. Essays in Biochemistry, 2000, 35, 117-129.	2.1	23
177	ATPase Strongly Bound to Higher Eukaryotic Ribosomes. FEBS Journal, 1994, 225, 305-310.	0.2	22
178	Conservation of Bacterial Protein Synthesis Machinery: Initiation and Elongation in <i>Mycobacterium smegmatis</i>. Biochemistry, 2008, 47, 8828-8839.	1.2	22
179	Thermodynamics of the GTP-GDP-operated Conformational Switch of Selenocysteine-specific Translation Factor SelB. Journal of Biological Chemistry, 2012, 287, 27906-27912.	1.6	22
180	A switch from Î±â€helical to Î²â€strand conformation during coâ€translational protein folding. EMBO Journal, 2022, 41, e109175.	3.5	21

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181	Single-step purification of specific tRNAs by hydrophobic tagging. Analytical Biochemistry, 2006, 356, 148-150.	1.1	20
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