Marina Rodnina

List of Publications by Year
in descending order

236 papers	18,370 citations	8732 75 h-index	17055 122 g-index
256 all docs	256 docs citations	256 times ranked	9747 citing authors

#	Article	IF	Citations
1	A switch from Î±â€helical to Î²â€strand conformation during coâ€translational protein folding. EMBO Journal, 2022, 41, e109175.	3.5	21
2	Tissue-specific regulation of translational readthrough tunes functions of the traffic jam transcription factor. Nucleic Acids Research, 2022, 50, 6001-6019.	6.5	6
3	Conformational rearrangements upon start codon recognition in human 48S translation initiation complex. Nucleic Acids Research, 2022, 50, 5282-5298.	6.5	15
4	Cotranslational Biogenesis of Membrane Proteins in Bacteria. Frontiers in Molecular Biosciences, 2022, 9, 871121.	1.6	3
5	Mutagenic Analysis of the HIV Restriction Factor Shiftless. Viruses, 2022, 14, 1454.	1.5	3
6	Yeast translation elongation factor eEF3 promotes late stages of tRNA translocation. EMBO Journal, 2021, 40, e106449.	3.5	19
7	Ribosome-bound Get4/5 facilitates the capture of tail-anchored proteins by Sgt2 in yeast. Nature Communications, 2021, 12, 782.	5.8	14
8	Translation error clusters induced by aminoglycoside antibiotics. Nature Communications, 2021, 12, 1830.	5.8	40
9	Lateral gate dynamics of the bacterial translocon during cotranslational membrane protein insertion. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14
10	Perturbation of ribosomal subunit dynamics by inhibitors of tRNA translocation. Rna, 2021, 27, 981-990.	1.6	8
11	Long-range allostery mediates cooperative adenine nucleotide binding by the Ski2-like RNA helicase Brr2. Journal of Biological Chemistry, 2021, 297, 100829.	1.6	3
12	Structural mechanism of GTPase-powered ribosome-tRNA movement. Nature Communications, 2021, 12, 5933.	5.8	33
13	Kinetic control of nascent protein biogenesis by peptide deformylase. Scientific Reports, 2021, 11, 24457.	1.6	6
14	Translational recoding: canonical translation mechanisms reinterpreted. Nucleic Acids Research, 2020, 48, 1056-1067.	6.5	61
15	Dual function of GTPBP6 in biogenesis and recycling of human mitochondrial ribosomes. Nucleic Acids Research, 2020, 48, 12929-12942.	6.5	33
16	Mechanism of ribosome rescue by alternative ribosome-rescue factor B. Nature Communications, 2020, 11, 4106.	5.8	26
17	Polysomes Bypass a 50-Nucleotide Coding Gap Less Efficiently Than Monosomes Due to Attenuation of a 5â€² mRNA Stemâ€"Loop and Enhanced Drop-off. Journal of Molecular Biology, 2020, 432, 4369-4387.	2.0	5
18	Cotranslational Folding of Proteins on the Ribosome. Biomolecules, 2020, 10, 97.	1.8	71

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19	Coâ€translational insertion and topogenesis of bacterial membrane proteins monitored in real time. EMBO Journal, 2020, 39, e104054.	3.5	17
20	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
21	Gradual compaction of the nascent peptide during cotranslational folding on the ribosome. ELife, 2020, 9, .	2.8	36
22	Cotranslational Folding of Protein Domains on the Ribosome. Biophysical Journal, 2020, 118, 319a.	0.2	0
23	Thermodynamic control of âˆ'1 programmed ribosomal frameshifting. Nature Communications, 2019, 10, 4598.	5.8	34
24	Converting GTP hydrolysis into motion: versatile translational elongation factor G. Biological Chemistry, 2019, 401, 131-142.	1.2	41
25	Mechanisms and biomedical implications of â€"1 programmed ribosome frameshifting on viral and bacterial mRNAs. FEBS Letters, 2019, 593, 1468-1482.	1.3	43
26	EF-Gâ€"induced ribosome sliding along the noncoding mRNA. Science Advances, 2019, 5, eaaw9049.	4.7	12
27	Broad range of missense error frequencies in cellular proteins. Nucleic Acids Research, 2019, 47, 2932-2945.	6.5	27
28	Modulation of HIV-1 Gag/Gag-Pol frameshifting by tRNA abundance. Nucleic Acids Research, 2019, 47, 5210-5222.	6.5	35
29	Monitoring Dynamics of Protein Nascent Chain on the Ribosome using PET-FCS. Biophysical Journal, 2019, 116, 189a-190a.	0.2	1
30	Active role of elongation factor G in maintaining the mRNA reading frame during translation. Science Advances, 2019, 5, eaax8030.	4.7	38
31	Translation in Prokaryotes. Cold Spring Harbor Perspectives in Biology, 2018, 10, a032664.	2.3	186
32	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
33	Visualization of translation termination intermediates trapped by the ApidaecinÂ137 peptide during RF3-mediated recycling of RF1. Nature Communications, 2018, 9, 3053.	5.8	48
34	Co-Translational Folding Trajectory of the HemK Helical Domain. Biochemistry, 2018, 57, 3460-3464.	1.2	31
35	Decomposition of time-dependent fluorescence signals reveals codon-specific kinetics of protein synthesis. Nucleic Acids Research, 2018, 46, e130-e130.	6.5	8
36	Functions of unconventional mammalian translational GTPases GTPBP1 and GTPBP2. Genes and Development, 2018, 32, 1226-1241.	2.7	25

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37	Small synthetic molecule-stabilized RNA pseudoknot as an activator for â€“1 ribosomal frameshifting. Nucleic Acids Research, 2018, 46, 8079-8089.	6.5	24
38	Dynamics of ribosomes and release factors during translation termination in E. coli. ELife, 2018, 7, .	2.8	38
39	Ribosome dynamics during decoding. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160182.	1.8	76
40	Conditional Switch between Frameshifting Regimes upon Translation of dnaX mRNA. Molecular Cell, 2017, 66, 558-567.e4.	4.5	41
41	Ribosome rearrangements at the onset of translational bypassing. Science Advances, 2017, 3, e1700147.	4.7	31
42	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
43	Co-translational protein folding: progress and methods. Current Opinion in Structural Biology, 2017, 42, 83-89.	2.6	98
44	Non-canonical Binding Site for Bacterial Initiation Factor 3 on the Large Ribosomal Subunit. Cell Reports, 2017, 20, 3113-3122.	2.9	14
45	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
46	Effect of Fusidic Acid on the Kinetics of Molecular Motions During EF-G-Induced Translocation on the Ribosome. Scientific Reports, 2017, 7, 10536.	1.6	18
47	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
48	Signal recognition particle binds to translating ribosomes before emergence of a signal anchor sequence. Nucleic Acids Research, 2017, 45, 11858-11866.	6.5	30
49	Protein Elongation, Co-translational Folding and Targeting. Journal of Molecular Biology, 2016, 428, 2165-2185.	2.0	64
50	Kinetics of Spontaneous and EF-G-Accelerated Rotation of Ribosomal Subunits. Cell Reports, 2016, 16, 2187-2196.	2.9	52
51	Review: Translational GTPases. Biopolymers, 2016, 105, 463-475.	1.2	73
52	<scp>NSUN</scp> 3 and <scp>ABH</scp> 1 modify the wobble position of mtâ€ <scp>RNA</scp> ^{Met} to expand codon recognition in mitochondrial translation. EMBO Journal, 2016, 35, 2104-2119.	3.5	197
53	Essential structural elements in tRNAPro for EF-P-mediated alleviation of translation stalling. Nature Communications, 2016, 7, 11657.	5.8	68
54	The pathway to GTPase activation of elongation factor SelB on the ribosome. Nature, 2016, 540, 80-85.	13.7	93

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55	Translocation as continuous movement through the ribosome. RNA Biology, 2016, 13, 1197-1203.	1.5	24
56	The ribosome in action: Tuning of translational efficiency and protein folding. Protein Science, 2016, 25, 1390-1406.	3.1	154
57	Choreography of molecular movements during ribosome progression along mRNA. Nature Structural and Molecular Biology, 2016, 23, 342-348.	3.6	77
58	Synonymous Codons Direct Cotranslational Folding toward Different Protein Conformations. Molecular Cell, 2016, 61, 341-351.	4.5	297
59	tRNA wobble modifications and protein homeostasis. Translation, 2016, 4, e1143076.	2.9	52
60	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
61	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
62	Changed in translation: mRNA recoding by âˆ’1 programmed ribosomal frameshifting. Trends in Biochemical Sciences, 2015, 40, 265-274.	3.7	105
63	Fluctuations between multiple EF-G-induced chimeric tRNA states during translocation on the ribosome. Nature Communications, 2015, 6, 7442.	5.8	55
64	Activities of the peptidyl transferase center of ribosomes lacking protein L27. Rna, 2015, 21, 2047-2052.	1.6	17
65	Partitioning between recoding and termination at a stop codonâ€“selenocysteine insertion sequence. Nucleic Acids Research, 2015, 43, 6426-6438.	6.5	20
66	Directional transition from initiation to elongation in bacterial translation. Nucleic Acids Research, 2015, 43, 10700-10712.	6.5	41
67	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
68	Cotranslational protein folding on the ribosome monitored in real time. Science, 2015, 350, 1104-1107.	6.0	178
69	Deducing the Kinetics of Protein Synthesis In Vivo from the Transition Rates Measured In Vitro. PLoS Computational Biology, 2014, 10, e1003909.	1.5	45
70	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
71	Lateral opening of the bacterial translocon on ribosome binding and signal peptide insertion. Nature Communications, 2014, 5, 5263.	5.8	48
72	REGULATING RIBOSOME PAUSING DURING TRANSLATION. , 2014, , .		0

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73	GTP hydrolysis by EF-G synchronizes tRNA movement on small and large ribosomal subunits. EMBO Journal, 2014, 33, 1073-1085.	3.5	81
74	Amicoumacin A Inhibits Translation by Stabilizing mRNA Interaction with the Ribosome. Molecular Cell, 2014, 56, 531-540.	4.5	73
75	Timing of GTP binding and hydrolysis by translation termination factor RF3. Nucleic Acids Research, 2014, 42, 1812-1820.	6.5	28
76	High-efficiency translational bypassing of non-coding nucleotides specified by mRNA structure and nascent peptide. Nature Communications, 2014, 5, 4459.	5.8	28
77	Structural basis for the inhibition of the eukaryotic ribosome. Nature, 2014, 513, 517-522.	13.7	434
78	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
79	Programmed â€“1 Frameshifting by Kinetic Partitioning during Impeded Translocation. Cell, 2014, 157, 1619-1631.	13.5	143
80	Elongation factor P: Function and effects on bacterial fitness. Biopolymers, 2013, 99, 837-845.	1.2	24
81	Energy barriers and driving forces in tRNA translocation through the ribosome. Nature Structural and Molecular Biology, 2013, 20, 1390-1396.	3.6	150
82	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
83	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
84	Evolution of the protein stoichiometry in the L12 stalk of bacterial and organellar ribosomes. Nature Communications, 2013, 4, 1387.	5.8	32
85	EF-P Is Essential for Rapid Synthesis of Proteins Containing Consecutive Proline Residues. Science, 2013, 339, 85-88.	6.0	418
86	Translocation of tRNAs through the Ribosome followed by Single Molecule FRET. Biophysical Journal, 2013, 104, 258a.	0.2	0
87	The ribosome as a versatile catalyst: reactions at the peptidyl transferase center. Current Opinion in Structural Biology, 2013, 23, 595-602.	2.6	53
88	Dual use of GTP hydrolysis by elongation factor G on the ribosome. Translation, 2013, 1, e24315.	2.9	62
89	Translocation in Action. Science, 2013, 340, 1534-1535.	6.0	3
90	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

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91	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
92	Quality control of mRNA decoding on the bacterial ribosome. Advances in Protein Chemistry and Structural Biology, 2012, 86, 95-128.	1.0	39
93	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
94	Real-time assembly landscape of bacterial 30S translation initiation complex. Nature Structural and Molecular Biology, 2012, 19, 609-615.	3.6	88
95	Dynamic switch of the signal recognition particle from scanning to targeting. Nature Structural and Molecular Biology, 2012, 19, 1332-1337.	3.6	65
96	Rapid Kinetic Analysis of Protein Synthesis. , 2012, , 119-139.		0
97	Kinetic control of translation initiation in bacteria. Critical Reviews in Biochemistry and Molecular Biology, 2012, 47, 334-348.	2.3	95
98	Different substrateâ€dependent transition states in the active site of the ribosome. FASEB Journal, 2012, 26, 544.1.	0.2	0
99	Single Molecule FRET Studies of Protein Conformational Landscapes: 3 Prototypic Examples for the Relation Between Conformational Dynamics and Function. Biophysical Journal, 2011, 100, 474a-475a.	0.2	2
100	The ribosome as a molecular machine: the mechanism of tRNAâ€“mRNA movement in translocation. Biochemical Society Transactions, 2011, 39, 658-662.	1.6	111
101	Different substrate-dependent transition states in the active site of the ribosome. Nature, 2011, 476, 351-354.	13.7	77
102	Distortion of tRNA upon Near-cognate Codon Recognition on the Ribosome. Journal of Biological Chemistry, 2011, 286, 8158-8164.	1.6	18
103	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
104	The Cryo-EM Structure of a Complete 30S Translation Initiation Complex from Escherichia coli. PLoS Biology, 2011, 9, e1001095.	2.6	102
105	Mechanisms of decoding and peptide bond formation. , 2011, , 199-212.		6
106	Functions of elongation factor G in translocation and ribosome recycling. , 2011, , 329-338.		8
107	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
108	The ribosome goes Nobel. Trends in Biochemical Sciences, 2010, 35, 1-5.	3.7	6

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109	Optimization of speed and accuracy of decoding in translation. EMBO Journal, 2010, 29, 3701-3709.	3.5	94
110	The ribosomeâ€bound initiation factor 2 recruits initiator tRNA to the 30S initiation complex. EMBO Reports, 2010, 11, 312-316.	2.0	86
111	Protein synthesis meets ABC ATPases: new roles for Rli1/ABCE1. EMBO Reports, 2010, 11, 143-144.	2.0	11
112	Ribosome dynamics and tRNA movement by time-resolved electron cryomicroscopy. Nature, 2010, 466, 329-333.	13.7	400
113	Mutations at the accommodation gate of the ribosome impair RF2-dependent translation termination. Rna, 2010, 16, 1848-1853.	1.6	23
114	Thermodynamic and Kinetic Framework of Selenocysteyl-tRNASec Recognition by Elongation Factor SelB. Journal of Biological Chemistry, 2010, 285, 3014-3020.	1.6	38
115	The crystal structure of unmodified tRNA Phe from Escherichia coli. Nucleic Acids Research, 2010, 38, 4154-4162.	6.5	85
116	The dynamic view of the ribosome in translocation. FASEB Journal, 2010, 24, 79.1.	0.2	0
117	Conformation of the signal recognition particle in ribosomal targeting complexes. Rna, 2009, 15, 44-54.	1.6	20
118	Visualizing the protein synthesis machinery: New focus on the translational GTPase elongation factor Tu. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 969-970.	3.3	6
119	Distinct functions of elongation factor G in ribosome recycling and translocation. Rna, 2009, 15, 772-780.	1.6	117
120	Recent mechanistic insights into eukaryotic ribosomes. Current Opinion in Cell Biology, 2009, 21, 435-443.	2.6	115
121	Long-range signalling in activation of the translational GTPase EF-Tu. EMBO Journal, 2009, 28, 619-620.	3.5	4
122	An Uncharged Amine in the Transition State of the Ribosomal Peptidyl Transfer Reaction. Chemistry and Biology, 2008, 15, 493-500.	6.2	44
123	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
124	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
125	Kinetic Checkpoint at a Late Step in Translation Initiation. Molecular Cell, 2008, 30, 712-720.	4.5	115
126	Conservation of Bacterial Protein Synthesis Machinery: Initiation and Elongation in <i>Mycobacterium smegmatis</i>. Biochemistry, 2008, 47, 8828-8839.	1.2	22

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127	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
128	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
129	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
130	Towards understanding selenocysteine incorporation into bacterial proteins. Biological Chemistry, 2007, 388, 1061-1067.	1.2	16
131	Colicins and their potential in cancer treatment. Blood Cells, Molecules, and Diseases, 2007, 38, 15-18.	0.6	29
132	Codon Reading by tRNAAla with Modified Uridine in the Wobble Position. Molecular Cell, 2007, 25, 167-174.	4.5	61
133	The Ribosomal Peptidyl Transferase. Molecular Cell, 2007, 26, 311-321.	4.5	148
134	Mechanism of EF-Ts-Catalyzed Guanine Nucleotide Exchange in EF-Tu:â€‰ Contribution of Interactions Mediated by Helix B of EF-Tu. Biochemistry, 2007, 46, 4977-4984.	1.2	19
135	Transient Kinetics, Fluorescence, and FRET in Studies of Initiation of Translation in Bacteria. Methods in Enzymology, 2007, 430, 1-30.	0.4	110
136	Importance of tRNA interactions with 23S rRNA for peptide bond formation on the ribosome: studies with substrate analogs. Biological Chemistry, 2007, 388, 687-91.	1.2	20
137	Spontaneous reverse movement of mRNA-bound tRNA through the ribosome. Nature Structural and Molecular Biology, 2007, 14, 318-324.	3.6	87
138	How ribosomes make peptide bonds. Trends in Biochemical Sciences, 2007, 32, 20-26.	3.7	131
139	Mechanism of peptide bond formation on the ribosome. Quarterly Reviews of Biophysics, 2006, 39, 203-225.	2.4	50
140	Kinetic Analysis of Interaction of Eukaryotic Release Factor 3 with Guanine Nucleotides. Journal of Biological Chemistry, 2006, 281, 40224-40235.	1.6	70
141	Delayed Release of Inorganic Phosphate from Elongation Factor Tu Following GTP Hydrolysis on the Ribosomeâ€. Biochemistry, 2006, 45, 12767-12774.	1.2	62
142	The ribosomeâ€™s response toÂcodonâ€“anticodon mismatches. Biochimie, 2006, 88, 1001-1011.	1.3	73
143	A Uniform Response to Mismatches in Codon-Anticodon Complexes Ensures Ribosomal Fidelity. Molecular Cell, 2006, 21, 369-377.	4.5	142
144	Peptide bond formation does not involve acid-base catalysis by ribosomal residues. Nature Structural and Molecular Biology, 2006, 13, 423-428.	3.6	109

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145	Rapid peptide bond formation on isolated 50S ribosomal subunits. EMBO Reports, 2006, 7, 699-703.	2.0	48
146	Single-step purification of specific tRNAs by hydrophobic tagging. Analytical Biochemistry, 2006, 356, 148-150.	1.1	20
147	Involvement of Helix 34 of 16 S rRNA in Decoding and Translocation on the Ribosome. Journal of Biological Chemistry, 2006, 281, 35235-35244.	1.6	13
148	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
149	The Importance of P-loop and Domain Movements in EF-Tu for Guanine Nucleotide Exchange. Journal of Biological Chemistry, 2006, 281, 21139-21146.	1.6	16
150	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
151	Ten remarks on peptide bond formation on the ribosome. Biochemical Society Transactions, 2005, 33, 493-498.	1.6	15
152	Control of phosphate release from elongation factor G by ribosomal protein L7/12. EMBO Journal, 2005, 24, 4316-4323.	3.5	105
153	GTPases of the Translation Apparatus. Molecular Biology, 2005, 39, 646-660.	0.4	12
154	Conformation of 4.5S RNA in the signal recognition particle and on the 30S ribosomal subunit. Rna, 2005, 11, 1374-1384.	1.6	25
155	Essential Mechanisms in the Catalysis of Peptide Bond Formation on the Ribosome. Journal of Biological Chemistry, 2005, 280, 36065-36072.	1.6	77
156	Domain rearrangement of SRP protein Ffh upon binding 4.5S RNA and the SRP receptor FtsY. Rna, 2005, 11, 947-957.	1.6	38
157	Structural and Functional Investigation of a Putative Archaeal Selenocysteine Synthaseâ€,â€¡. Biochemistry, 2005, 44, 13315-13327.	1.2	297
158	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
159	Sequence of Steps in Ribosome Recycling as Defined by Kinetic Analysis. Molecular Cell, 2005, 18, 403-412.	4.5	137
160	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
161	Recognition and selection of tRNA in translation. FEBS Letters, 2005, 579, 938-942.	1.3	137
162	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

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163	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
164	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
165	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
166	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
167	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
168	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
169	Kinetic Determinants of High-Fidelity tRNA Discrimination on the Ribosome. Molecular Cell, 2004, 13, 191-200.	4.5	317
170	Mechanisms of elongation on the ribosome: dynamics of a macromolecular machine. Biochemical Society Transactions, 2004, 32, 733-737.	1.6	115
171	Contacts of Elongation Factor G with the Small Ribosomal Subunit: Cross-Linking Approach. Doklady Biochemistry and Biophysics, 2003, 393, 312-315.	0.3	2
172	Peptide bond formation on the ribosome: structure and mechanism. Current Opinion in Structural Biology, 2003, 13, 334-340.	2.6	43
173	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
174	An Elongation Factor G-Induced Ribosome Rearrangement Precedes tRNA-mRNA Translocation. Molecular Cell, 2003, 11, 1517-1523.	4.5	275
175	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
176	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
177	Mechanism of Elongation Factor (EF)-Ts-catalyzed Nucleotide Exchange in EF-Tu. Journal of Biological Chemistry, 2002, 277, 6032-6036.	1.6	40
178	Inactivation of the Elongation Factor Tu by Mosquitocidal Toxin-Catalyzed Mono-ADP-Ribosylation. Applied and Environmental Microbiology, 2002, 68, 4894-4899.	1.4	33
179	Coupling of GTP Hydrolysis by Elongation Factor G to Translocation and Factor Recycling on the Ribosomeâ€. Biochemistry, 2002, 41, 12806-12812.	1.2	101
180	Kinetic Mechanism of Elongation Factor Ts-Catalyzed Nucleotide Exchange in Elongation Factor Tuâ€. Biochemistry, 2002, 41, 162-169.	1.2	104

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181	GTPase Activation of Elongation Factors Tu and G on the Ribosomeâ€. Biochemistry, 2002, 41, 12520-12528.	1.2	138
182	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
183	Structural dynamics of ribosomal RNA during decoding on the ribosome. Biochimie, 2002, 84, 745-754.	1.3	49
184	Ribosome interactions of aminoacyl-tRNA and elongation factor Tu in the codon-recognition complex. Nature Structural Biology, 2002, 9, 849-54.	9.7	108
185	Fidelity of Aminoacyl-tRNA Selection on the Ribosome: Kinetic and Structural Mechanisms. Annual Review of Biochemistry, 2001, 70, 415-435.	5.0	294
186	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
187	A Common Structural Motif in Elongation Factor Ts and Ribosomal Protein L7/12 May Be Involved in the Interaction with Elongation Factor Tu. Journal of Molecular Evolution, 2001, 52, 129-136.	0.8	19
188	Mechanism of tRNA Translocation on the Ribosome. Molecular Biology, 2001, 35, 559-568.	0.4	26
189	Ribosome fidelity: tRNA discrimination, proofreading and induced fit. Trends in Biochemical Sciences, 2001, 26, 124-130.	3.7	112
190	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
191	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
192	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
193	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
194	Energetic contribution of tRNA hybrid state formation to translocation catalysis on the ribosome. Nature Structural Biology, 2000, 7, 1027-1031.	9.7	95
195	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
196	Late events of translation initiation in bacteria: a kinetic analysis. EMBO Journal, 2000, 19, 2127-2136.	3.5	90
197	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
198	GTPase Mechanisms and Functions of Translation Factors on the Ribosome. Biological Chemistry, 2000, 381, 377-87.	1.2	79

#	Article	IF	Citations
199	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
200	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
201	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
202	Large-Scale Movement of Elongation Factor G and Extensive Conformational Change of the Ribosome during Translocation. Cell, 2000, 100, 301-309.	13.5	294
203	Intact Aminoacyl-tRNA Is Required To Trigger GTP Hydrolysis by Elongation Factor Tu on the Ribosomeâ€. Biochemistry, 2000, 39, 1734-1738.	1.2	71
204	Translational elongation factor G: a GTP-driven motor of the ribosome. Essays in Biochemistry, 2000, 35, 117-129.	2.1	23
205	Ribosomal RNA is the target for oxazolidinones, a novel class of translational inhibitors. Rna, 1999, 5, 939-946.	1.6	71
206	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
207	Dynamics of translation on the ribosome: molecular mechanics of translocation. FEMS Microbiology Reviews, 1999, 23, 317-333.	3.9	49
208	Induced fit in initial selection and proofreading of aminoacyl-tRNA on the ribosome. EMBO Journal, 1999, 18, 3800-3807.	3.5	293
209	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
210	Interaction of Guanine Nucleotides with the Signal Recognition Particle from Escherichia coli. Biochemistry, 1998, 37, 15408-15413.	1.2	63
211	Form follows function: Structure of an elongation factor G-ribosome complex. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 7237-7239.	3.3	10
212	Arrangement of tRNAs in Pre- and Posttranslocational Ribosomes Revealed by Electron Cryomicroscopy. Cell, 1997, 88, 19-28.	13.5	247
213	Hydrolysis of GTP by elongation factor G drives tRNA movement on the ribosome. Nature, 1997, 385, 37-41.	13.7	456
214	Visualization of elongation factor Tu on the Escherichia coli ribosome. Nature, 1997, 389, 403-406.	13.7	342
215	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
216	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

#	Article	IF	Citations
217	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
218	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
219	The G222D mutation in elongation factor Tu inhibits the codon-induced conformational changes leading to GTPase activation on the ribosome. EMBO Journal, 1996, 15, 6766-74.	3.5	18
220	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
221	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
222	Siteâ€Directed Mutagenesis of <i>Thermus thermophilus</i> Elongation Factor Tu. FEBS Journal, 1995, 229, 596-604.	0.2	3
223	Site-Directed Mutagenesis of Thermus thermophilus Elongation Factor Tu. Replacement of His85, Asp81 and Arg300. FEBS Journal, 1995, 229, 596-604.	0.2	44
224	Codon-dependent conformational change of elongation factor Tu preceding GTP hydrolysis on the ribosome. EMBO Journal, 1995, 14, 2613-9.	3.5	57
225	Purification of fMET-tRNAfMET by Fast Protein Liquid Chromatography. Analytical Biochemistry, 1994, 219, 380-381.	1.1	52
226	ATPase Strongly Bound to Higher Eukaryotic Ribosomes. FEBS Journal, 1994, 225, 305-310.	0.2	22
227	Transient Conformational States of Aminoacyl-tRNA during Ribosome Binding Catalyzed by Elongation Factor Tu. Biochemistry, 1994, 33, 12267-12275.	1.2	139
228	Kinetic Fluorescence Study on EF-Tu-Dependent Binding of Phe-tRNAPhe to the Ribosomal a Site. , 1993, , 317-326.		4
229	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
230	Interaction of tRNA with the A and P sites of rabbit-liver 80S ribosomes and their 40S subunits. FEBS Journal, 1989, 185, 563-568.	0.2	15
231	Models of elongation: two or three tRNA binding sites on the ribosome?. Biopolymers and Cell, 1989, 5, 5-14.	0.1	0
232	Number of tRNA binding sites on 80 S ribosomes and their subunits. FEBS Letters, 1988, 231, 71-74.	1.3	16
233	The number of tRNA-binding sites on 80S ribosomes and their subunits. Biopolymers and Cell, 1987, 3, 157-160.	0.1	0
234	The coding properties of six leucine tRNA from the cow mammary gland. Biopolymers and Cell, 1986, 2, 53-55.	0.1	0

#	Article	IF	Citations
235	Dynamics of translation on the ribosome: molecular mechanics of translocation. , 0, .		1
236	Mechanisms of Partial Reactions of the Elongation Cycle Catalyzed by Elongation Factors Tu and G. , 0, , 299-317.		5