MÃ¥ns Ehrenberg

List of Publications by Year
in descending order

101 papers	8,797 citations	53794 45 h-index	43889 91 g-index
103 all docs	103 docs citations	103 times ranked	5838 citing authors

#	Article	IF	Citations
1	Locking and Unlocking of Ribosomal Motions. Cell, 2003, 114, 123-134.	28.9	579
2	The Bacterial Toxin RelE Displays Codon-Specific Cleavage of mRNAs in the Ribosomal A Site. Cell, 2003, 112, 131-140.	28.9	500
3	The Mechanism of Action of Macrolides, Lincosamides and Streptogramin B Reveals the Nascent Peptide Exit Path in the Ribosome. Journal of Molecular Biology, 2003, 330, 1005-1014.	4.2	368
4	Fast Evaluation of Fluctuations in Biochemical Networks With the Linear Noise Approximation. Genome Research, 2003, 13, 2475-2484.	5.5	348
5	Incorporation of aminoacyl-tRNA into the ribosome as seen by cryo-electron microscopy. Nature Structural and Molecular Biology, 2003, 10, 899-906.	8.2	317
6	Release factor RF3 in E.coli accelerates the dissociation of release factors RF1 and RF2 from the ribosome in a GTP-dependent manner. EMBO Journal, 1997, 16, 4126-4133.	7.8	266
7	A cryo-electron microscopic study of ribosome-bound termination factor RF2. Nature, 2003, 421, 87-90.	27.8	234
8	Selective Charging of tRNA Isoacceptors Explains Patterns of Codon Usage. Science, 2003, 300, 1718-1722.	12.6	228
9	NEW EMBO MEMBER'S REVIEW: Termination of translation: interplay of mRNA, rRNAs and release factors?. EMBO Journal, 2003, 22, 175-182.	7.8	206
10	Novel Roles for Classical Factors at the Interface between Translation Termination and Initiation. Molecular Cell, 1999, 3, 601-609.	9.7	205
11	Noise in a minimal regulatory network: plasmid copy number control. Quarterly Reviews of Biophysics, 2001, 34, 1-59.	5.7	204
12	N6-methyladenosine in mRNA disrupts tRNA selection and translation-elongation dynamics. Nature Structural and Molecular Biology, 2016, 23, 110-115.	8.2	202
13	Selective charging of tRNA isoacceptors induced by aminoâ€acid starvation. EMBO Reports, 2005, 6, 151-157.	4.5	201
14	Costs of accuracy determined by a maximal growth rate constraint. Quarterly Reviews of Biophysics, 1984, 17, 45-82.	5.7	200
15	Structure of the Escherichia coli ribosomal termination complex with release factor 2. Nature, 2003, 421, 90-94.	27.8	191
16	A Posttermination Ribosomal Complex Is the Guanine Nucleotide Exchange Factor for Peptide Release Factor RF3. Cell, 2001, 107, 115-124.	28.9	186
17	Release of Peptide Promoted by the GGQ Motif of Class 1 Release Factors Regulates the GTPase Activity of RF3. Molecular Cell, 2002, 10, 789-798.	9.7	172
18	Control of rRNA Synthesis in Escherichia coli : a Systems Biology Approach. Microbiology and Molecular Biology Reviews, 2004, 68, 639-668.	6.6	166

#	Article	IF	Citations
19	Peptidyl-tRNA Regulates the GTPase Activity of Translation Factors. Cell, 2003, 114, 113-122.	28.9	134
20	The Kinetics of Ribosomal Peptidyl Transfer Revisited. Molecular Cell, 2008, 30, 589-598.	9.7	133
21	Splitting of the Posttermination Ribosome into Subunits by the Concerted Action of RRF and EF-G. Molecular Cell, 2005, 18, 675-686.	9.7	132
22	The hemK gene in Escherichia coli encodes the N5-glutamine methyltransferase that modifies peptide release factors. EMBO Journal, 2002, 21, 769-778.	7.8	131
23	pH-sensitivity of the ribosomal peptidyl transfer reaction dependent on the identity of the A-site aminoacyl-tRNA. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 79-84.	7.1	127
24	Interplay of signal recognition particle and trigger factor at L23 near the nascent chain exit site on the Escherichia coli ribosome. Journal of Cell Biology, 2003, 161, 679-684.	5.2	123
25	How initiation factors tune the rate of initiation of protein synthesis in bacteria. EMBO Journal, 2006, 25, 2539-2550.	7.8	121
26	Mechanism for the Disassembly of the Posttermination Complex Inferred from Cryo-EM Studies. Molecular Cell, 2005, 18, 663-674.	9.7	117
27	Genetic code translation displays a linear trade-off between efficiency and accuracy of tRNA selection. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 131-136.	7.1	114
28	Rate of Translation of Natural mRNAs in an Optimizedin VitroSystem. Archives of Biochemistry and Biophysics, 1996, 328, 9-16.	3.0	113
29	Ribosome Rescue by tmRNA Requires Truncated mRNAs. Journal of Molecular Biology, 2004, 338, 33-41.	4.2	110
30	Fluctuations and Quality of Control in Biological Cells: Zero-Order Ultrasensitivity Reinvestigated. Biophysical Journal, 2000, 79, 1228-1236.	0.5	108
31	Ribosome formation from subunits studied by stopped-flow and rayleigh light scattering. Biological Procedures Online, 2004, 6, 35-54.	2.9	106
32	The essential role of the invariant GGQ motif in the function and stability in vivo of bacterial release factors RF1 and RF2. Molecular Microbiology, 2003, 47, 267-275.	2.5	103
33	Rate and accuracy of bacterial protein synthesis revisited. Current Opinion in Microbiology, 2008, 11, 141-147.	5.1	103
34	The SAXS Solution Structure of RF1 Differs from Its Crystal Structure and Is Similar to Its Ribosome Bound Cryo-EM Structure. Molecular Cell, 2005, 20, 929-938.	9.7	98
35	Free RNA polymerase and modeling global transcription in Escherichia coli. Biochimie, 2003, 85, 597-609.	2.6	93
36	2â€²-O-methylation in mRNA disrupts tRNA decoding during translation elongation. Nature Structural and Molecular Biology, 2018, 25, 208-216.	8.2	92

#	Article	IF	Citations
37	Optimization of Translation Accuracy. Progress in Molecular Biology and Translational Science, 1984, 31, 191-219.	1.9	81
38	Key Intermediates in Ribosome Recycling Visualized by Time-Resolved Cryoelectron Microscopy. Structure, 2016, 24, 2092-2101.	3.3	68
39	Release factor RF3 abolishes competition between release factor RF1 and ribosome recycling factor (RRF) for a ribosome binding site. Journal of Molecular Biology, 1997, 273, 389-401.	4.2	65
40	Interactions of the Release Factor RF1 with the Ribosome as Revealed by Cryo-EM. Journal of Molecular Biology, 2006, 357, 1144-1153.	4.2	64
41	Ribosomes are optimized for autocatalytic production. Nature, 2017, 547, 293-297.	27.8	60
42	Medium-dependent control of the bacterial growth rate. Biochimie, 2013, 95, 643-658.	2.6	59
43	Kinetics of Macrolide Action. Journal of Biological Chemistry, 2004, 279, 53506-53515.	3.4	56
44	Shutdown in protein synthesis due to the expression of mini-genes in bacteria. Journal of Molecular Biology, 1999, 291, 745-759.	4.2	55
45	Optimal control of gene expression for fast proteome adaptation to environmental change. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20527-20532.	7.1	55
46	Complementary roles of initiation factor 1 and ribosome recycling factor in 70S ribosome splitting. EMBO Journal, 2008, 27, 1706-1717.	7.8	53
47	Pre-binding of Small Protein B to a Stalled Ribosome Triggers trans-Translation. Journal of Biological Chemistry, 2004, 279, 25978-25985.	3.4	48
48	Two proofreading steps amplify the accuracy of genetic code translation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13744-13749.	7.1	48
49	Determinants of the Rate of mRNA Translocation in Bacterial Protein Synthesis. Journal of Molecular Biology, 2015, 427, 1835-1847.	4.2	47
50	Guanosine tetraphosphate as a global regulator of bacterial RNA synthesis: a model involving RNA polymerase pausing and queuing. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1995, 1262, 15-36.	2.4	45
51	Accuracy of initial codon selection by aminoacyl-tRNAs on the mRNA-programmed bacterial ribosome. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9602-9607.	7.1	44
52	Stop codon recognition and interactions with peptide release factor RF3 of truncated and chimeric RF1 and RF2 from Escherichia coli. Molecular Microbiology, 2003, 50, 1467-1476.	2.5	43
53	Erythromycin resistance by L4/L22 mutations and resistance masking by drug efflux pump deficiency. EMBO Journal, 2009, 28, 736-744.	7.8	43
54	The structural basis for release-factor activation during translation termination revealed by time-resolved cryogenic electron microscopy. Nature Communications, 2019, 10, 2579.	12.8	43

#	Article	IF	Citations
55	Fusidic acid-resistant EF-G perturbs the accumulation of ppGpp. Molecular Microbiology, 2000, 37, 98-107.	2.5	42
56	Kinetic suppression of translational errors by (p)ppGpp. Molecular Genetics and Genomics, 1982, 185, 269-274.	2.4	41
57	Molecular mechanism of viomycin inhibition of peptide elongation in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 978-983.	7.1	40
58	Trigger Factor Binding to Ribosomes with Nascent Peptide Chains of Varying Lengths and Sequences. Journal of Biological Chemistry, 2006, 281, 28033-28038.	3.4	39
59	Comment on â€œThe Mechanism for Activation of GTP Hydrolysis on the Ribosomeâ€ Science, 2011, 333, 37-37.	12.6	38
60	Fusidic Acid Targets Elongation Factor G in Several Stages of Translocation on the Bacterial Ribosome. Journal of Biological Chemistry, 2015, 290, 3440-3454.	3.4	38
61	On the pH Dependence of Class-1 RF-Dependent Termination of mRNA Translation. Journal of Molecular Biology, 2015, 427, 1848-1860.	4.2	38
62	Catalytic effects of elongation factor Ts on polypeptide synthesis. EMBO Journal, 1982, 1, 75-78.	7.8	37
63	Systems Biology Is Taking Off. Genome Research, 2003, 13, 2377-2380.	5.5	36
64	tmRNAÂ·SmpB complex mimics native aminoacyl-tRNAs in the A site of stalled ribosomes. Journal of Structural Biology, 2010, 169, 342-348.	2.8	34
65	Complete kinetic mechanism for recycling of the bacterial ribosome. Rna, 2016, 22, 10-21.	3.5	33
66	Simultaneous binding of trigger factor and signal recognition particle to the E. coli ribosome. Biochimie, 2004, 86, 495-500.	2.6	32
67	tmRNA-induced Release of Messenger RNA from Stalled Ribosomes. Journal of Molecular Biology, 2005, 350, 897-905.	4.2	32
68	Free RNA polymerase in Escherichia coli. Biochimie, 2015, 119, 80-91.	2.6	32
69	Targeting and insertion of heterologous membrane proteins in E. coli. Biochimie, 2003, 85, 659-668.	2.6	31
70	Is translation inhibited by noncognate ternary complexes?. FEBS Letters, 1988, 233, 95-99.	2.8	29
71	Cryo-EM shows stages of initial codon selection on the ribosome by aa-tRNA in ternary complex with GTP and the GTPase-deficient EF-TuH84A. Nucleic Acids Research, 2018, 46, 5861-5874.	14.5	29
72	Inefficient Delivery but Fast Peptide Bond Formation of Unnatural <scp>l</scp>-Aminoacyl-tRNAs in Translation. Journal of the American Chemical Society, 2012, 134, 17955-17962.	13.7	28

#	Article	IF	Citations
73	Proofreading neutralizes potential error hotspots in genetic code translation by transfer RNAs. Rna, 2016, 22, 896-904.	3.5	26
74	Mapping the interaction of SmpB with ribosomes by footprinting of ribosomal RNA. Nucleic Acids Research, 2005, 33, 3529-3539.	14.5	25
75	Activation of initiation factor 2 by ligands and mutations for rapid docking of ribosomal subunits. EMBO Journal, 2011, 30, 289-301.	7.8	25
76	A conformational switch in initiation factor 2 controls the fidelity of translation initiation in bacteria. Nature Communications, 2017, 8, 1475.	12.8	25
77	Accuracy of genetic code translation and its orthogonal corruption by aminoglycosides and Mg2+ ions. Nucleic Acids Research, 2018, 46, 1362-1374.	14.5	25
78	Errorâ€prone initiation factor 2 mutations reduce the fitness cost of antibiotic resistance. Molecular Microbiology, 2010, 75, 1299-1313.	2.5	22
79	Structure probing of tmRNA in distinct stages of trans-translation. Rna, 2007, 13, 713-722.	3.5	20
80	Peptide Formation by <i>N</i>-Methyl Amino Acids in Translation Is Hastened by Higher pH and tRNA^{Pro}. ACS Chemical Biology, 2014, 9, 1303-1311.	3.4	19
81	Impaired in vitro kinetics of EF-Tu mutant Aa. FEBS Journal, 1990, 188, 347-354.	0.2	18
82	What Makes Ribosome-Mediated Transcriptional Attenuation Sensitive to Amino Acid Limitation?. PLoS Computational Biology, 2005, 1, e2.	3.2	18
83	Substrate-Induced Formation of Ribosomal Decoding Center for Accurate and Rapid Genetic Code Translation. Annual Review of Biophysics, 2018, 47, 525-548.	10.0	14
84	Mutants of EF-Tu defective in binding aminoacyl-tRNA. FEBS Letters, 1996, 382, 297-303.	2.8	13
85	Transcriptional accuracy modeling suggests two-step proofreading by RNA polymerase. Nucleic Acids Research, 2017, 45, 11582-11593.	14.5	11
86	Cis-acting resistance peptides reveal dual ribosome inhibitory action of the macrolide josamycin. Biochimie, 2009, 91, 989-995.	2.6	10
87	Identification of enzyme inhibitory mechanisms from steady-state kinetics. Biochimie, 2011, 93, 1623-1629.	2.6	10
88	Mechanism of fusidic acid inhibition of RRF- and EF-G-dependent splitting of the bacterial post-termination ribosome. Nucleic Acids Research, 2016, 44, 3264-3275.	14.5	10
89	A recent intermezzo at the Ribosome Club. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160185.	4.0	10
90	<i>N</i> 6-Methyladenosines in mRNAs reduce the accuracy of codon reading by transfer RNAs and peptide release factors. Nucleic Acids Research, 2021, 49, 2684-2699.	14.5	10

#	Article	IF	Citations
91	DNA Template Dependent Accuracy Variation of Nucleotide Selection in Transcription. PLoS ONE, 2015, 10, e0119588.	2.5	10
92	The mechanism of error induction by the antibiotic viomycin provides insight into the fidelity mechanism of translation. ELife, 2019, 8, .	6.0	9
93	Sensitivity analysis of metabolic cascades catalyzed by bifunctional enzymes. Molecular Biology Reports, 2002, 29, 211-215.	2.3	6
94	Mesoscopic kinetics and its applications in protein synthesis. , 0, , 95-18.		6
95	Thermodynamic Modeling of Variations in the Rate of RNA Chain Elongation of E.Âcoli rrn Operons. Biophysical Journal, 2014, 106, 55-64.	0.5	6
96	Estimation of peptide elongation times from ribosome profiling spectra. Nucleic Acids Research, 2021, 49, 5124-5142.	14.5	5
97	Systems Biology. FEBS Letters, 2009, 583, 3881-3881.	2.8	4
98	Translocation in slow motion. Nature, 2010, 466, 325-326.	27.8	2
99	Rate and accuracy of messenger RNA translation on the ribosome. , 2011, , 225-235.		1
100	Key Intermediates in Ribosome Recycling Visualized by Time-Resolved Cryoelectron Microscopy. journal of hand surgery Asian-Pacific volume, The, 2018, , 516-525.	0.4	0
101	A cryo-electron microscopic study of ribosome-bound termination factor RF2. journal of hand surgery Asian-Pacific volume, The, 2018, , 331-334.	0.4	0