Sidney R Kushner

List of Publications by Year
in descending order

125 papers	10,724 citations	38660 50 h-index	32761 100 g-index
129 all docs	129 docs citations	129 times ranked	5161 citing authors

#	Article	IF	Citations
1	Inactivation of RNase P in <i>Escherichia coli</i> significantly changes postâ€transcriptional RNA metabolism. Molecular Microbiology, 2022, 117, 121-142.	1.2	12
2	Regulation of mRNA decay in<i>E. coli</i>. Critical Reviews in Biochemistry and Molecular Biology, 2022, 57, 48-72.	2.3	6
3	The C nucleotide at the mature 5â€² end of the <i>Escherichia coli</i> proline tRNAs is required for the RNase E cleavage specificity at the 3â€² terminus as well as functionality. Nucleic Acids Research, 2022, 50, 1639-1649.	6.5	4
4	Generation of pre-tRNAs from polycistronic operons is the essential function of RNase P in Escherichia coli. Nucleic Acids Research, 2020, 48, 2564-2578.	6.5	19
5	New Insights into the Relationship between tRNA Processing and Polyadenylation in Escherichia coli. Trends in Genetics, 2019, 35, 434-445.	2.9	13
6	Analysis of post-transcriptional RNA metabolism in prokaryotes. Methods, 2019, 155, 124-130.	1.9	6
7	Enzymes Involved in Posttranscriptional RNA Metabolism in Gram-Negative Bacteria. Microbiology Spectrum, 2018, 6, .	1.2	46
8	Enzymes Involved in Posttranscriptional RNA Metabolism in Gram-Negative Bacteria. , 2018, , 19-35.		2
9	The rph-1 -Encoded Truncated RNase PH Protein Inhibits RNase P Maturation of Pre-tRNAs with Short Leader Sequences in the Absence of RppH. Journal of Bacteriology, 2017, 199, .	1.0	7
10	RNase Eâ€based degradosome modulates polyadenylation of mRNAs after Rhoâ€independent transcription terminators in <i>Escherichia coli</i>. Molecular Microbiology, 2016, 101, 645-655.	1.2	16
11	Endonucleolytic cleavages by RNase E generate the mature 3â€² termini of the three proline tRNAs in<i>Escherichia coli</i>. Nucleic Acids Research, 2016, 44, 6350-6362.	6.5	35
12	Regulation of mRNA Decay in Bacteria. Annual Review of Microbiology, 2016, 70, 25-44.	2.9	102
13	Polyadenylation in <i>E. coli</i>: a 20 year odyssey. Rna, 2015, 21, 673-674.	1.6	11
14	Processing of the seven valine tRNAs in Escherichia coli involves novel features of RNase P. Nucleic Acids Research, 2014, 42, 11166-11179.	6.5	28
15	In Vivo Analysis of Polyadenylation in Prokaryotes. Methods in Molecular Biology, 2014, 1125, 229-249.	0.4	8
16	Deregulation of poly(A) polymerase I in Escherichia coli inhibits protein synthesis and leads to cell death. Nucleic Acids Research, 2013, 41, 1757-1766.	6.5	29
17	Polyadenylation helps regulate functional tRNA levels in Escherichia coli. Nucleic Acids Research, 2012, 40, 4589-4603.	6.5	54
18	RNA snap â„¢: a rapid, quantitative and inexpensive, method for isolating total RNA from bacteria. Nucleic Acids Research, 2012, 40, e156-e156.	6.5	145

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19	Bacterial/archaeal/organellar polyadenylation. Wiley Interdisciplinary Reviews RNA, 2011, 2, 256-276.	3.2	74
20	Analysis of Escherichia coli RNase E and RNase III activity in vivo using tiling microarrays. Nucleic Acids Research, 2011, 39, 3188-3203.	6.5	112
21	Processing of the Escherichia coli leuX tRNA transcript, encoding tRNALeu5, requires either the 3'->5' exoribonuclease polynucleotide phosphorylase or RNase P to remove the Rho-independent transcription terminator. Nucleic Acids Research, 2010, 38, 597-607.	6.5	40
22	Single amino acid changes in the predicted RNase H domain of Escherichia coli RNase G lead to complementation of RNase E deletion mutants. Rna, 2010, 16, 1371-1385.	1.6	31
23	<i>De novo</i> computational prediction of non-coding RNA genes in prokaryotic genomes. Bioinformatics, 2009, 25, 2897-2905.	1.8	37
24	The Response Regulator SprE (RssB) Modulates Polyadenylation and mRNA Stability in<i>Escherichia coli</i>. Journal of Bacteriology, 2009, 191, 6812-6821.	1.0	19
25	Chapter 1 Analysis of RNA Decay, Processing, and Polyadenylation in Escherichia coli and Other Prokaryotes. Methods in Enzymology, 2008, 447, 3-29.	0.4	23
26	Intragenic suppressors of temperature-sensitive <i>rne</i> mutations lead to the dissociation of RNase E activity on mRNA and tRNA substrates in <i>Escherichia coli</i>. Nucleic Acids Research, 2008, 36, 5306-5318.	6.5	19
27	Rho-independent transcription terminators inhibit RNase P processing of the secG leuU and metT tRNA polycistronic transcripts in Escherichia coli. Nucleic Acids Research, 2007, 36, 364-375.	6.5	41
28	Ribonuclease P processes polycistronic tRNA transcripts in Escherichia coli independent of ribonuclease E. Nucleic Acids Research, 2007, 35, 7614-7625.	6.5	50
29	Messenger RNA Decay. EcoSal Plus, 2007, 2, .	2.1	1
30	RNase Z in Escherichia coli plays a significant role in mRNA decay. Molecular Microbiology, 2006, 60, 723-737.	1.2	72
31	The majority of Escherichia coli mRNAs undergo post-transcriptional modification in exponentially growing cells. Nucleic Acids Research, 2006, 34, 5695-5704.	6.5	97
32	Identification of a novel regulatory protein (CsrD) that targets the global regulatory RNAs CsrB and CsrC for degradation by RNase E. Genes and Development, 2006, 20, 2605-2617.	2.7	252
33	Reliability Of Unsupported Upper Limb Exercise Test Performance For Patients With Multiple Sclerosis. Medicine and Science in Sports and Exercise, 2005, 37, S225-S226.	0.2	0
34	The Sm-like protein Hfq regulates polyadenylation dependent mRNA decay in Escherichia coli. Molecular Microbiology, 2004, 54, 905-920.	1.2	190
35	mRNA Decay in Prokaryotes and Eukaryotes: Different Approaches to a Similar Problem. IUBMB Life, 2004, 56, 585-594.	1.5	93
36	RNase G of Escherichia coli exhibits only limited functional overlap with its essential homologue, RNase E. Molecular Microbiology, 2004, 49, 607-622.	1.2	59

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37	Pre-tRNA and Pre-rRNA Processing in Bacteria. , 2004, , 420-424.		1
38	Genomic analysis in Escherichia coli demonstrates differential roles for polynucleotide phosphorylase and RNase II in mRNA abundance and decay. Molecular Microbiology, 2003, 50, 645-658.	1.2	102
39	Initiation of tRNA maturation by RNase E is essential for cell viability in E. coli. Genes and Development, 2002, 16, 1102-1115.	2.7	187
40	mRNA Decay in Escherichia coli Comes of Age. Journal of Bacteriology, 2002, 184, 4658-4665.	1.0	216
41	RNase E levels in Escherichia coli are controlled by a complex regulatory system that involves transcription of the rne gene from three promoters. Molecular Microbiology, 2002, 43, 159-171.	1.2	37
42	Polyadenylation of Escherichia coli transcripts plays an integral role in regulating intracellular levels of polynucleotide phosphorylase and RNase E. Molecular Microbiology, 2002, 45, 1315-1324.	1.2	37
43	Polynucleotide phosphorylase, RNase II and RNase E play different roles in the in vivo modulation of polyadenylation in Escherichia coli. Molecular Microbiology, 2000, 36, 982-994.	1.2	82
44	Analysis of mRNA decay and rRNA processing in Escherichia coli in the absence of RNase E-based degradosome assembly. Molecular Microbiology, 2000, 38, 854-866.	1.2	128
45	Polynucleotide phosphorylase functions both as a 3' right-arrow 5' exonuclease and a poly(A) polymerase in Escherichiacoli. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 11966-11971.	3.3	245
46	RNA Methylation under Heat Shock Control. Molecular Cell, 2000, 6, 349-360.	4.5	228
47	Analysis of the function of Escherichia coli poly(A) polymerase I in RNA metabolism. Molecular Microbiology, 1999, 34, 1094-1108.	1.2	127
48	Residual polyadenylation in poly(A) polymerase I (pcnB) mutants of Escherichia coli does not result from the activity encoded by the f310 gene. Molecular Microbiology, 1999, 34, 1109-1119.	1.2	31
49	Identification and Characterization of Escherichia coli DNA Helicase II Mutants That Exhibit Increased Unwinding Efficiency. Journal of Bacteriology, 1998, 180, 377-387.	1.0	21
50	The <i>Escherichia coli mrsC</i> Gene Is Required for Cell Growth and mRNA Decay. Journal of Bacteriology, 1998, 180, 1920-1928.	1.0	32
51	<i>Escherichia coli mrsC</i> Is an Allele of <i>hflB</i> , Encoding a Membrane-Associated ATPase and Protease That Is Required for mRNA Decay. Journal of Bacteriology, 1998, 180, 1929-1938.	1.0	29
52	Analysis of the in vivo decay of the Escherichia coli dicistronic pyrF-orfF transcript: evidence for multiple degradation pathways 1 1Edited by M. Yaniv. Journal of Molecular Biology, 1997, 268, 261-272.	2.0	17
53	Development of an in vitro mRNA decay system for Escherichia coli: Poly(A) polymerase I is necessary to trigger degradation. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 12926-12931.	3.3	56
54	Polyadenylylation helps regulate mRNA decay in Escherichia coli.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 1807-1811.	3.3	242

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55	Escherichia coli peptide methionine sulfoxide reductase gene: regulation of expression and role in protecting against oxidative damage. Journal of Bacteriology, 1995, 177, 502-507.	1.0	275
56	The umpA gene of Escherichia coli encodes phosphatidylglycerol:prolipoprotein diacylglyceryl transferase (lgt) and regulates thymidylate synthase levels through translational coupling. Journal of Bacteriology, 1995, 177, 1879-1882.	1.0	38
57	Identification of a Second Poly(A) Polymerase in Escherichia coli. Biochemical and Biophysical Research Communications, 1994, 198, 459-465.	1.0	37
58	Characterization of DNA helicase II from a uvrD252 mutant of Escherichia coli. Journal of Bacteriology, 1993, 175, 341-350.	1.0	25
59	Analysis of mRNA decay and rRNA processing in Escherichia coli multiple mutants carrying a deletion in RNase III. Journal of Bacteriology, 1993, 175, 229-239.	1.0	118
60	Identification of endonucleolytic cleavage sites involved in decay of Escherichia coli trxA mRNA. Journal of Bacteriology, 1993, 175, 1043-1052.	1.0	33
61	Role of the heat shock response in stability of mRNA in Escherichia coli K-12. Journal of Bacteriology, 1992, 174, 743-748.	1.0	24
62	Extracellular release of protease III (ptr) by Escherichia coli K12. Canadian Journal of Microbiology, 1991, 37, 718-721.	0.8	2
63	Construction of versatile low-copy-number vectors for cloning, sequencing and gene expression in Escherichia coli. Gene, 1991, 100, 195-199.	1.0	1,102
64	Construction and analysis of deletions in the structural gene (uvrD) for DNA helicase II of Escherichia coli. Journal of Bacteriology, 1991, 173, 2569-2575.	1.0	76
65	The Ams (altered mRNA stability) protein and ribonuclease E are encoded by the same structural gene of Escherichia coli.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 1-5.	3.3	301
66	The role of the â€˜gearboxâ€™ in the transcription of essential genes. Molecular Microbiology, 1991, 5, 2085-2091.	1.2	89
67	Isolation and characterization of a new temperature-sensitive polynucleotide phosphorylase mutation in Escherichia coli K-12. Biochimie, 1990, 72, 835-843.	1.3	27
68	Cloning of the altered mRNA stability (ams) gene of Escherichia coli K-12. Journal of Bacteriology, 1989, 171, 5479-5486.	1.0	42
69	New method for generating deletions and gene replacements in Escherichia coli. Journal of Bacteriology, 1989, 171, 4617-4622.	1.0	713
70	CLONING: a microcomputer program for cloning simulations. Gene, 1988, 65, 111-116.	1.0	4
71	Transcript mapping using [35S]DNA probes, trichloroacetate solvent and dideoxy sequencing ladders: a rapid method for identification of transcriptional start points. Gene, 1988, 65, 101-110.	1.0	45
72	Generation of a detailed physical and genetic map of the ilv-metE-udp region of the Escherichia coli chromosome. Journal of Molecular Biology, 1988, 200, 427-438.	2.0	20

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73	Instructions for the CLONING program. Gene, 1988, 65, 117-122.	1.0	2
74	Stabilization of discrete mRNA breakdown products in ams pnp rnb multiple mutants of Escherichia coli K-12. Journal of Bacteriology, 1988, 170, 4625-4633.	1.0	220
75	Physical and biochemical characterization of cloned sbcB and xonA mutations from Escherichia coli K-12. Journal of Bacteriology, 1988, 170, 2089-2094.	1.0	65
76	Identification, cloning, and expression of bolA, an ftsZ-dependent morphogene of Escherichia coli. Journal of Bacteriology, 1988, 170, 5169-5176.	1.0	126
77	Analysis of the regulatory region of the protease iii (ptr) gene of escherichia coli k-12. Gene, 1987, 54, 185-195.	1.0	19
78	The simple repeat poly(dT-dG).poly(dC-dA) common to eukaryotes is absent from eubacteria and archaebacteria and rare in protozoans.. Molecular Biology and Evolution, 1986, 3, 343-55.	3.5	26
79	Alberta's Construction Labour Relations During the Recent Downturn. Industrial Relations, 1986, 41, 778-801.	0.2	3
80	Polynucleotide phosphorylase and ribonuclease II are required for cell viability and mRNA turnover in Escherichia coli K-12.. Proceedings of the National Academy of Sciences of the United States of America, 1986, 83, 120-124.	3.3	429
81	Involvement of helicase II (uvrD gene product) and DNA polymerase I in excision mediated by the uvrABC protein complex.. Proceedings of the National Academy of Sciences of the United States of America, 1985, 82, 4925-4929.	3.3	225
82	Physical characterization of the cloned protease III gene from Escherichia coli K-12. Journal of Bacteriology, 1985, 163, 1055-1059.	1.0	29
83	Nucleotide sequence of the thioredoxin gene from Escherichia coli. Bioscience Reports, 1984, 4, 917-923.	1.1	46
84	Genetic and physical analysis of the thioredoxin (trxA) gene of Escherichia coli K-12. Gene, 1984, 32, 399-408.	1.0	38
85	Purification and Characterization of Exonuclease V from Escherichia coli K-12. Cold Spring Harbor Symposia on Quantitative Biology, 1984, 49, 463-467.	2.0	24
86	Physical and biochemical analysis of the cloned recB and recC genes of Escherichia coli K-12. Journal of Bacteriology, 1984, 157, 21-27.	1.0	79
87	Exonucleases I, III, and V are required for stability of ColE1-related plasmids in Escherichia coli. Journal of Bacteriology, 1984, 157, 661-664.	1.0	55
88	Cloning and physical analysis of the pyrF gene (coding for orotidine-5â€²-phosphate decarboxylase) from Escherichia coli K-12. Gene, 1983, 25, 39-48.	1.0	27
89	Amplification of ribonuclease II(mb) activity inEscherichia coliK-12. Nucleic Acids Research, 1983, 11, 265-276.	6.5	60
90	Transcription of theuvrDgene ofEscherichia coliis controlled by thelexArepressor and by attenuation. Nucleic Acids Research, 1983, 11, 8625-8640.	6.5	50

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91	Purification and characterization of orotidine-5'-phosphate decarboxylase from Escherichia coli K-12.. Journal of Bacteriology, 1983, 156, 620-624.	1.0	23
92	DNA repair in Escherichia coli: identification of the uvrD gene product.. Proceedings of the National Academy of Sciences of the United States of America, 1982, 79, 5616-5620.	3.3	103
93	The cloning and analysis of the aroD gene of E. coli K-12. Gene, 1981, 14, 73-80.	1.0	15
94	Cloning the quinic acid (qa) gene cluster from Neurospora crassa: identification of recombinant plasmids containing both qa-2+ and qa-3+. Gene, 1981, 14, 23-32.	1.0	24
95	Identification and characterization of recombinant plasmids carrying the complete qa gene cluster from Neurospora crassa including the qa-1+ regulatory gene.. Proceedings of the National Academy of Sciences of the United States of America, 1981, 78, 5086-5090.	3.3	125
96	Genetic organization and transcriptional regulation in the qa gene cluster of Neurospora crassa.. Proceedings of the National Academy of Sciences of the United States of America, 1981, 78, 5783-5787.	3.3	59
97	Expression of the HIS3 gene of Saccharomyces cerevisiae in polynucleotide phosphorylase-deficient strains of Escherichia coli K-12. Gene, 1980, 12, 1-10.	1.0	22
98	Isolation of plasmids carrying either the uvrC or uvrC uvrA and ssb genes of Escherichia coli K-12. Gene, 1980, 12, 243-248.	1.0	19
99	Constitutive expression in Escherichia coli of the Neurospora crassa structural gene encoding the inducible enzyme catabolic dehydroquinase. Molecular Genetics and Genomics, 1979, 172, 93-98.	2.4	11
100	Increased expression of a eukaryotic gene in Escherichia coli through stabilization of its messenger RNA.. Proceedings of the National Academy of Sciences of the United States of America, 1979, 76, 5774-5778.	3.3	48
101	Efficient transformation of Neurospora crassa by utilizing hybrid plasmid DNA. Proceedings of the National Academy of Sciences of the United States of America, 1979, 76, 5259-5263.	3.3	331
102	Chloroplast ribosomal RNA genes in Euglena gracilis exist as three clustered tandem repeats. Gene, 1978, 3, 191-209.	1.0	77
103	Transcription and translation in E. coli of hybrid plasmids containing the catabolic dehydroquinase gene from Neurospora crassa. Gene, 1978, 4, 241-259.	1.0	41
104	Recombinant levels of Escherichia coli K-12 mutants deficient in various replication, recombination, or repair genes. Journal of Bacteriology, 1978, 134, 958-966.	1.0	144
105	Conditionally lethal ribosomal protein mutants: characterization of a locus required for modification of 50S subunit proteins.. Proceedings of the National Academy of Sciences of the United States of America, 1977, 74, 467-471.	3.3	23
106	Expression in Escherichia coli K-12 of the structural gene for catabolic dehydroquinase of Neurospora crassa. Proceedings of the National Academy of Sciences of the United States of America, 1977, 74, 3508-3512.	3.3	116
107	Transcription of ribosomal protein genes carried on Fâ€² plasmids ofEscherichia coli. Molecular Genetics and Genomics, 1977, 150, 183-191.	2.4	0
108	Analysis of genetic recombination between two partially deleted lactose operons of Escherichia coli K-12. Journal of Bacteriology, 1977, 131, 123-132.	1.0	77

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109	Amplification in Escherichia coli of enzymes involved in genetic recombination: construction of hybrid ColE1 plasmids carrying the structural gene for exonuclease I.. Proceedings of the National Academy of Sciences of the United States of America, 1976, 73, 3492-3496.	3.3	57
110	A proposal for a uniform nomenclature for the genetics of bacterial protein synthesis. Molecular Genetics and Genomics, 1976, 147, 145-151.	2.4	10
111	Analysis of Temperature-Sensitive recB and recC Mutations. , 1975, 5A, 301-306.		1
112	Isolation of Exonuclease VIII: The Enzyme Associated with the sbcA Indirect Suppressor. Proceedings of the National Academy of Sciences of the United States of America, 1974, 71, 3593-3597.	3.3	131
113	Isolation of the Enzyme Associated with the sbcA Indirect Suppressor. , 1974, , 137-143.		4
114	In Vivo Studies of Temperature-Sensitive recB and recC Mutants. Journal of Bacteriology, 1974, 120, 1213-1218.	1.0	99
115	Differential Thermolability of Exonuclease and Endonuclease Activities of the <i>recBC</i> Nuclease Isolated from Thermosensitive <i>recB</i> and <i>recC</i> Mutants. Journal of Bacteriology, 1974, 120, 1219-1222.	1.0	53
116	Indirect Suppression of recB and recC Mutations by Exonuclease I Deficiency. Proceedings of the National Academy of Sciences of the United States of America, 1972, 69, 1366-1370.	3.3	161
117	GENETIC ANALYSIS OF MUTATIONS INDIRECTLY SUPPRESSING <i>recB</i> AND <i>recC</i> MUTATIONS. Genetics, 1972, 72, 205-215.	1.2	99
118	Enzymic repair of DNA. III. Properties of the uv-endonuclease and uv-exonuclease. Biochemistry, 1971, 10, 3315-3324.	1.2	153
119	Enzymic repair of deoxyribonucleic acid. IV. Mechanism of photoproduct excision. Biochemistry, 1971, 10, 3325-3334.	1.2	78
120	Genetic Recombination in Escherichia coli: The Role of Exonuclease I. Proceedings of the National Academy of Sciences of the United States of America, 1971, 68, 824-827.	3.3	376
121	In vivo Role of the UV-Endonuclease from Micrococcus luteus in the Repair of DNA. Nature: New Biology, 1971, 234, 47-50.	4.5	25
122	ENZYMATIC REPAIR OF DNA, I. PURIFICATION OF TWO ENZYMES INVOLVED IN THE EXCISION OF THYMINE DIMERS FROM ULTRAVIOLET-IRRADIATED DNA. Proceedings of the National Academy of Sciences of the United States of America, 1969, 63, 144-151.	3.3	108
123	Enzymes Involved in the Early Stages of Repair of Ultraviolet-Irradiated DNA. Cold Spring Harbor Symposia on Quantitative Biology, 1968, 33, 229-234.	2.0	43
124	mRNA Decay and Processing. , 0, , 327-345.		2
125	Maturation of the <i>E. coli</i> Glu2, Ile1 and <scp>Ala1B tRNAs</scp> utilizes a complex processing pathway. Molecular Microbiology, 0, , .	1.2	1