Katsuhiko S Murakami

List of Publications by Year
in descending order

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59
papers

6,057
citations

147801
31
h-index

144013
57
g-index

140
all docs

140
docs citations

140
times ranked

5560
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Mechanism for Rifampicin Inhibition of Bacterial RNA Polymerase. Cell, 2001, 104, 901-912.	28.9	1,219
2	Recent functional insights into the role of (p)ppGpp in bacterial physiology. Nature Reviews Microbiology, 2015, 13, 298-309.	28.6	703
3	Structural Basis of Transcription Initiation: An RNA Polymerase Holoenzyme-DNA Complex. Science, 2002, 296, 1285-1290.	12.6	597
4	Structural Basis of Transcription Initiation: RNA Polymerase Holoenzyme at 4 A Resolution. Science, 2002, 296, 1280-1284.	12.6	503
5	Bacterial RNA polymerases: the wholo story. Current Opinion in Structural Biology, 2003, 13, 31-39.	5.7	469
6	Differential regulation by ppGpp versus pppGpp in Escherichia coli. Nucleic Acids Research, 2013, 41, 6175-6189.	14.5	202
7	The X-ray crystal structure of RNA polymerase from Archaea. Nature, 2008, 451, 851-854.	27.8	193
8	X-ray Crystal Structure of Escherichia coli RNA Polymerase Ïƒ70 Holoenzyme. Journal of Biological Chemistry, 2013, 288, 9126-9134.	3.4	174
9	Structural Basis of Transcription Initiation by Bacterial RNA Polymerase Holoenzyme. Journal of Biological Chemistry, 2014, 289, 24549-24559.	3.4	159
10	RNA polymerase and transcription elongation factor Spt4/5 complex structure. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 546-550.	7.1	139
11	Co-overexpression of Escherichia coliRNA Polymerase Subunits Allows Isolation and Analysis of Mutant Enzymes Lacking Lineage-specific Sequence Insertions. Journal of Biological Chemistry, 2003, 278, 12344-12355.	3.4	132
12	Identification of SARS-CoV-2 inhibitors targeting Mpro and PLpro using in-cell-protease assay. Communications Biology, 2022, 5, 169.	4.4	118
13	Structural Biology of Bacterial RNA Polymerase. Biomolecules, 2015, 5, 848-864.	4.0	93
14	Allosteric Effector ppGpp Potentiates the Inhibition of Transcript Initiation by DksA. Molecular Cell, 2018, 69, 828-839.e5.	9.7	89
15	Fitness costs of rifampicin resistance in <scp><i>M</i></scp><i>ycobacterium tuberculosis</i> are amplified under conditions of nutrient starvation and compensated by mutation in the Î²â€² subunit of <scp>RNA</scp> polymerase. Molecular Microbiology, 2014, 91, 1106-1119.	2.5	85
16	Structures of the RNA polymerase-Ïƒ ⁵⁴ reveal new and conserved regulatory strategies. Science, 2015, 349, 882-885.	12.6	77
17	Structural basis for rifamycin resistance of bacterial RNA polymerase by the three most clinically important RpoB mutations found in <i>Mycobacterium tuberculosis</i>. Molecular Microbiology, 2017, 103, 1034-1045.	2.5	76
18	Molecular basis of microhomology-mediated end-joining by purified full-length PolÎ¸. Nature Communications, 2019, 10, 4423.	12.8	66

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19	NusG Is a Sequence-specific RNA Polymerase Pause Factor That Binds to the Non-template DNA within the Paused Transcription Bubble. Journal of Biological Chemistry, 2016, 291, 5299-5308.	3.4	63
20	Structure and Function of Lineage-specific Sequence Insertions in the Bacterial RNA Polymerase Î²â€² Subunit. Journal of Molecular Biology, 2005, 353, 138-154.	4.2	62
21	Cryo-EM structure of Escherichia coli Ïƒ70 RNA polymerase and promoter DNA complex revealed a role of Ïƒ non-conserved region during the open complex formation. Journal of Biological Chemistry, 2018, 293, 7367-7375.	3.4	61
22	Archaeal RNA polymerase and transcription regulation. Critical Reviews in Biochemistry and Molecular Biology, 2011, 46, 27-40.	5.2	55
23	Mode of Action of Kanglemycin A, an Ansamycin Natural Product that Is Active against Rifampicin-Resistant Mycobacterium tuberculosis. Molecular Cell, 2018, 72, 263-274.e5.	9.7	51
24	X-ray Crystal Structures of the <i>Escherichia coli</i> RNA Polymerase in Complex with Benzoxazinorifamycins. Journal of Medicinal Chemistry, 2013, 56, 4758-4763.	6.4	49
25	Structural basis of ribosomal RNA transcription regulation. Nature Communications, 2021, 12, 528.	12.8	46
26	Archaeal RNA polymerase. Current Opinion in Structural Biology, 2009, 19, 724-731.	5.7	44
27	An Introduction to the Structure and Function of the Catalytic Core Enzyme of <i>Escherichia coli</i> RNA Polymerase. EcoSal Plus, 2018, 8, .	5.4	44
28	Archaeal RNA polymerase subunits E and F are not required for transcription <i>in vitro</i>, but a <i>Thermococcus kodakarensis</i> mutant lacking subunit F is temperatureâ€sensitive. Molecular Microbiology, 2008, 70, 623-633.	2.5	43
29	Structural Basis for DNA-Hairpin Promoter Recognition by the Bacteriophage N4 Virion RNA Polymerase. Molecular Cell, 2008, 32, 707-717.	9.7	42
30	X-ray crystal structures elucidate the nucleotidyl transfer reaction of transcript initiation using two nucleotides. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3566-3571.	7.1	36
31	The X-ray crystal structure of the euryarchaeal RNA polymerase in an open-clamp configuration. Nature Communications, 2014, 5, 5132.	12.8	36
32	X-ray Crystal Structures of <i>Escherichia coli</i> RNA Polymerase with Switch Region Binding Inhibitors Enable Rational Design of Squaramides with an Improved Fraction Unbound to Human Plasma Protein. Journal of Medicinal Chemistry, 2015, 58, 3156-3171.	6.4	36
33	Watching the Bacteriophage N4 RNA Polymerase Transcription by Time-dependent Soak-trigger-freeze X-ray Crystallography. Journal of Biological Chemistry, 2013, 288, 3305-3311.	3.4	34
34	Structure-function comparisons of (p)ppApp vs (p)ppGpp for Escherichia coli RNA polymerase binding sites and for rrnB P1 promoter regulatory responses in vitro. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2018, 1861, 731-742.	1.9	26
35	Mycobacterial HelD is a nucleic acids-clearing factor for RNA polymerase. Nature Communications, 2020, 11, 6419.	12.8	22
36	X-ray crystal structure of the polymerase domain of the bacteriophage N4 virion RNA polymerase. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 5046-5051.	7.1	20

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37	Inactivation of the Bacterial RNA Polymerase Due to Acquisition of Secondary Structure by the Ï‰ Subunit. Journal of Biological Chemistry, 2013, 288, 25076-25087.	3.4	20
38	Structure and function of an unusual flavodoxin from the domain <i>Archaea</i>. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 25917-25922.	7.1	17
39	Functional Analysis of the Three TATA Binding Protein Homologs in <i>Methanosarcina acetivorans</i>. Journal of Bacteriology, 2010, 192, 1511-1517.	2.2	16
40	Time-Resolved Events on the Reaction Pathway of Transcript Initiation by a Single-Subunit RNA Polymerase: Raman Crystallographic Evidence. Journal of the American Chemical Society, 2011, 133, 12544-12555.	13.7	16
41	X-ray crystal structure of a reiterative transcription complex reveals an atypical RNA extension pathway. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8211-8216.	7.1	16
42	Region 3.2 of the Ïƒ factor controls the stability of rRNA promoter complexes and potentiates their repression by DksA. Nucleic Acids Research, 2018, 46, 11477-11487.	14.5	16
43	Structural basis of RNA polymerase recycling by the Swi2/Snf2 family of ATPase RapA in Escherichia coli. Journal of Biological Chemistry, 2021, 297, 101404.	3.4	14
44	Structural and mutational analysis of archaeal ATP-dependent RNA ligase identifies amino acids required for RNA binding and catalysis. Nucleic Acids Research, 2016, 44, 2337-2347.	14.5	13
45	Novel Chemical Scaffolds for Inhibition of Rifamycin-Resistant RNA Polymerase Discovered from High-Throughput Screening. SLAS Discovery, 2017, 22, 287-297.	2.7	11
46	Structural basis of reiterative transcription from the pyrG and pyrBI promoters by bacterial RNA polymerase. Nucleic Acids Research, 2020, 48, 2144-2155.	14.5	10
47	The mechanism of the nucleo-sugar selection by multi-subunit RNA polymerases. Nature Communications, 2021, 12, 796.	12.8	8
48	Evaluation of Bacterial RNA Polymerase Inhibitors in a Staphylococcus aureus-Based Wound Infection Model in SKH1 Mice. ACS Infectious Diseases, 2020, 6, 2573-2581.	3.8	5
49	Direct binding of TFEÎ± opens DNA binding cleft of RNA polymerase. Nature Communications, 2020, 11, 6123.	12.8	5
50	Minimalism and functionality: Structural lessons from the heterodimeric N4 bacteriophage RNA polymerase II. Journal of Biological Chemistry, 2018, 293, 13616-13625.	3.4	4
51	Transcription | RNA Polymerase Reaction in Bacteria. , 2021, , 358-364.		3
52	Introduction to Nucleic Acid Polymerases: Families, Themes, and Mechanisms. Nucleic Acids and Molecular Biology, 2014, , 1-15.	0.2	3
53	On the stability of stalled RNA polymerase and its removal by RapA. Nucleic Acids Research, 2022, 50, 7396-7405.	14.5	3
54	Bacteriophage RNA Polymerases. Nucleic Acids and Molecular Biology, 2014, , 237-250.	0.2	1

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55	Watching the bacterial RNA polymerase transcription reaction by time-dependent soak-trigger-freeze X-ray crystallography. The Enzymes, 2021, 49, 305-314.	1.7	1
56	Optimization of Benzoxazinorifamycins to Minimize hPXR Activation for the Treatment of Tuberculosis and HIV Coinfection. ACS Infectious Diseases, 2022, 8, 1408-1421.	3.8	1
57	Optimization of Benzoxazinorifamycins to Improve <i>Mycobacterium tuberculosis</i> RNA Polymerase Inhibition and Treatment of Tuberculosis. ACS Infectious Diseases, 2022, 8, 1422-1438.	3.8	1
58	Transcriptional Regulation in Archaea. , 2013, , 2254-2258.		0
59	The Xâ€ray Crystal Structure of Escherichia Coli RNA Polymerase Ïƒ 70 Holoenzyme. FASEB Journal, 2013, 27, 547.2.	0.5	0